Military Review

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CHINA

TAIWAN

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Cover photo: One notional concept of an attempt by China to an-
nex Taiwan by force assumes that Chinese forces would prioritize
leaving the large economic centers largely intact by avoiding urban
warfare but would employ instead massive ground fires and aerial
attacks on the heavily defended western shoreline of Taiwan to de-
stroy the bulk of Taiwanese forces while directing the invasion's main
effort at securing lodgments on the relatively lightly defended east-
ern and southern coast lines. Such landings would place enormous
diplomatic pressure on Taiwan's government while making landings
by the forces of other nations wanting to assist Taiwan extremely dif-
ficult, costly, and risky. (Map courtesy of Google Earth. Data from SIO,
NOAA, U.S. Navy, NGA, and GEBCO; Image Landsat/Copernicus; ©
2020 Google; © 2020 ZENRIN)

Next page: A Stryker Infantry Carrier Vehicle lies on its side after a
blast from a buried improvised explosive device (IED) 6 January 2007
in Iraq. The Stryker was recovered and protected its soldiers on more
missions until another bomb finally put it out of action. (Photo courte-
sy of the U.S. Army)

Notification

by William Adler

To a KIA
Baghdad, Iraq, October 2005

In a flash you became invisible to me.

The grey-black ash framed by dun colored dust swirls,

filled

our

sky.

The flood of sound pushing away *all* sound, swallowed you.

Then that fearsome flood washed over me.

In the swelling mushroom-cloud,

where I stood, at the roadside,

watching you,

I wondered if my time was up-

this time.

But, I never said your name.

Now, the Sergeant Major will shout it out-

your name (with the others).

We'll sit, where you sat, and walk where you walked.

Amid the pale flowers, flags, and dusty tentage.

All drained of color by that common sun that god made for *us*.

Outside, the makers of your demise-

The builders, of the bomb.

And inside, the dissembling retinue,

and the *once-again* mourners.

But our sudden shock is incomparable

to the sharp stab and lingering ache

of the inevitable notification.

Lt. Col. William Adler, U.S. Army, is a military professor at the Naval War College in the College of Leadership and Ethics. He is a career infantry officer with service in mechanized and Stryker infantry formations. He has deployed to Bosnia, Kosovo, Iraq, and Afghanistan. He served as a combat advisor in Iraq in 2004 for the 7th Iraqi Army Infantry Battalion and again in Afghanistan in 2010-2011 with the 1st Squadron, 2nd Stryker Cavalry Regiment as a battalion executive officer.

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REVIEW ESSAY

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M1 Abrams tanks positioned to fire 21 July 2020 during Phase II of Defender-Europe 20, an exercise supporting the *2018 National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge* and NATO deterrence objectives, at Drawsko Pomorskie Training Area, Poland. (Photo by Jason Johnston, U.S. Army)

Other Topics

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The Question

Why Would China Not Invade Taiwan Now?

Posed by Tim Willasey-Wilsey, Former Senior Member, British Foreign Office

One of many pieces of nationalist propagandistic artwork created by students of the Sichuan Fine Arts Institute in Chongqing, China, that depict a People's Liberation Army invasion of Taiwan. (Image courtesy of the Sichuan Fine Arts Institute)

The political arguments for an invasion of Taiwan by China have grown considerably stronger in recent weeks. The main constraint now is military. The key question is whether the People's Liberation Army (PLA) is capable of achieving a quick victory over Taiwan.

Western experts were confident that the Soviets would not go into Czechoslovakia in 1968, and Afghanistan in 1979, the Iraqis into Kuwait in 1990, and the Russians into Crimea in 2014. Even the Israelis misread the signals at the start of the Yom Kippur war in 1973. This is not an area where the West has a good record.

A key question now is whether China might risk an invasion of Taiwan. Some analysts have seized on recent clues. Chinese Prime Minister Premier Li Keqiang dropped the word "peaceful" before "reunification" when discussing Taiwan in his annual work report published in May. And President Xi Jinping, speaking to the PLA on 26 May, suggested they should "comprehensively strengthen the training of troops and prepare for war".

This article does not argue that China will invade Taiwan. There are good reasons for the Chinese not doing so. It would be a huge gamble for armed forces which have not been employed in combat during the careers of even their most senior officers. The aircraft carriers and amphibious landing ships are still relatively new. A lot could go wrong. A very public military failure would be a humiliating and possibly career-threatening experience for President Xi Jinping and for the Chinese Communist Party (CCP). Many members of the leadership would doubtless argue for patience.

What this article *does* try to convey are the arguments in favor of acting now rather than waiting. There is likely to be at least one member of the Politburo Standing Committee (PBSC) and the Central Military Commission (CMC) who would make some or all of the following ten points.

- There may never be another moment when the whole world is focused on managing an event of the scale of the coronavirus pandemic. There is not the bandwidth in any Western capital to react to another global crisis. Furthermore, China itself is over the worst of its own domestic COVID-19 outbreak.
- There has always been an intention, voiced in different ways over the years, to unify the country in time for the centenary of the CCP in 2021 and long before that of the People's Republic of China (PRC) in 2049.
- The idea of "one country, two systems" appears to have failed in Hong Kong. The new Chinese clampdown in Hong Kong will kill forever any notion that Taiwan can be lured into a similar arrangement.
- The victory of the Democratic Progressive Party (DPP) in the January 2020 elections has shown that the nationalist spirit is still alive and well in Taiwan. With a four-year term there is no guarantee that a pro-Beijing party will win in 2024, especially after the coming repression of Hong Kong. Nor does the new DPP administration respect the "1992 Consensus", by which a former Kuomintang (KMT) government tacitly accepted that China and Taiwan were a single nation.
- The Trump administration has no appetite for overseas military adventures, and certainly not before the November U.S. presidential election. Trump is not going to war with China, and not over Taiwan. He is far more interested in trade wars and economic advantage.
- The Americans have always been ambivalent about the exact nature of their defense commitments to Taiwan. The 1979 Taiwan Relations Act fell far short of a guarantee to come to Taiwan's assistance in the event of a Chinese invasion. Even President Reagan's "Six Assurances" of 1982 made no mention of U.S. military intervention.
- There is little chance that the U.S. would sail a carrier strike group into or near the Taiwan Strait now that the PLA Navy (PLAN) is equipped with quiet submarines. The loss of a U.S. surface ship could lead to a full-scale war which neither China nor the U.S. would wish under any circumstances.

Tim Willasey-Wilsey served for over twenty-seven years in the British Foreign and Commonwealth Office. His first overseas posting was to Angola during the Cold War followed by Central America during the instability of the late 1980s. Much of his career was spent in Asia including a posting to Pakistan in the mid–1990s. Tim has focused for many years on South Asia and North East Asia as well as the issues of terrorism, organized crime, insurgency, and conflict resolution. He has twice been elected to the Council of Chatham House, UK's premier global think-tank.

- Russia's President Vladimir Putin showed how it should be done when, in 2014, he annexed the Crimean Peninsula. The secret is to achieve victory quickly and then accept the inevitable diplomatic condemnation and imposition of sanctions. But the international community has a short memory. There is even talk now of readmitting Russia to the G7.

- The PLA needs to be used if China is to be recognized as a genuine world power. The Americans have had the Balkans, Iraq, and Afghanistan to demonstrate their military prowess and become proficient with their equipment in action, but the Chinese military have been confined to barracks for too long.

- China could hardly be more globally unpopular than now. Much of it may be unfair but there will be plenty of time to improve diplomatic relations once Taiwan has been safely reunified. And, once reunified, pro-Western countries, like Japan and South Korea, will be more humbled and less likely to believe in the U.S. defense umbrella.

With such a forceful political case made for an invasion, the focus would then turn to the PLA members on the CMC. When asked if they could quickly conquer Taiwan, it would be fascinating to hear their answer.

The Conversation

Editor's note: This column has been modified from its original version. The original document with all guest notes can be found at https://www.thecipherbrief.com/the-question-why-would-china-not-invade-taiwan-now.

I find Mr. Willasey-Wilsey's proposition plausible. Though the Chinese are quintessentially patient, they are also demonstrably opportunistic. I would be surprised if this debate hasn't already begun within the CMC. In the end, I think they will conclude that there are more reasons for them to remain patient on the Taiwan issue. But I hope we have our antennas up.

—Gen. Martin Dempsey (Ret.), Former Chairman of the Joint Chiefs of Staff

There is a cogent argument to be made at the most senior levels in Beijing that this is a perfect moment for a strike on Taiwan. But I would ascribe less than a one in four chance that they make a military move in the immediate future, i.e., before U.S. elections. The risks militarily are far from negligible. The Taiwanese will fight and fight hard. As Sun Tzu says, despite all his elegant tactical and strategic maneuvering, "when on death ground, fight." *Madame Tsai, the current president and her national security team will see this correctly as a death ground and they will fight. Second, China has much more to lose internationally from economic sanctions than any other major economy. Coming on top of the COVID fiasco, there will be plenty of international support to really hurt its economy. Finally, I think it is valid to say the U.S. won't want to get into a war over Taiwan; but there are many military options in cyber, South China Sea strikes, special forces, and other means to indicate displeasure in the event of such a move. All of this is a somewhat close call, and from a Chinese perspective there are indeed reasons to "fight tonight" for Taiwan—but my assessment is the Chinese will crack down on Hong Kong, build their fleet, economy, and cyber for another decade, and make their move then against Taiwan—not now. They will play the long game.*

—Adm. James Stavridis (Ret.), Former Supreme Allied Commander, NATO

This is an interesting hypothesis. There probably are some hawks in Beijing arguing for the invasion of Taiwan, confident the U.S. would not respond with military might. They would be wrong. Failure to defend Taiwan is not an option. The Taiwan Relations Act of January 1, 1979, mandated by the Congress, is explicit: " … any effort to determine the future of Taiwan by other than peaceful means … (is) a threat to the peace and security of the Western Pacific area and of grave concern to the U.S. … To maintain the capacity of the U.S. to resist any resort to force or other forms of coercion that would jeopardize the security, or the social and economic system, of the people of Taiwan." The President and Congress, with the vast support of the American people, would respond quickly and decisively to an invasion of Taiwan. This is a moral and geostrategic imperative for the U.S. Moreover, an invasion of Taiwan would be a military and economic disaster for China. Taiwan is not Crimea. Militarily, Taiwan has capabilities that, coupled with U.S. support, would repel an invasion, inflicting significant damage on China. Economically, China is experiencing high unemployment, estimated at from 15 to 20 percent of the population, with export orders falling to rates similar to the 2009 global financial crisis. An invasion of Taiwan would devastate its faltering economy, with global opprobrium ending its ambitious Belt and Road and other related initiatives. In short, an invasion of Taiwan would be a catastrophic miscalculation on the part of China.

—Amb. Joseph DeTrani, Former Special Advisor to the DNI and former CIA Director of East Asia Operations

Time Horizons Drive Potential Taiwan Cross-Strait Conflict

David An

2060

Sino-Russian

India border

China-Japan island chain

Taiwan

South China Sea island chain

2040

Possible future conflicts ...

Subsume Hong Kong

2020

Cybersecurity cooperation (2015)

Rim of the Pacific Exercises (RIMPAC) (2014)

U.S.-China Military Diplomacy

Naval port visits

2000

Monitoring posts in China (1980s)

1980
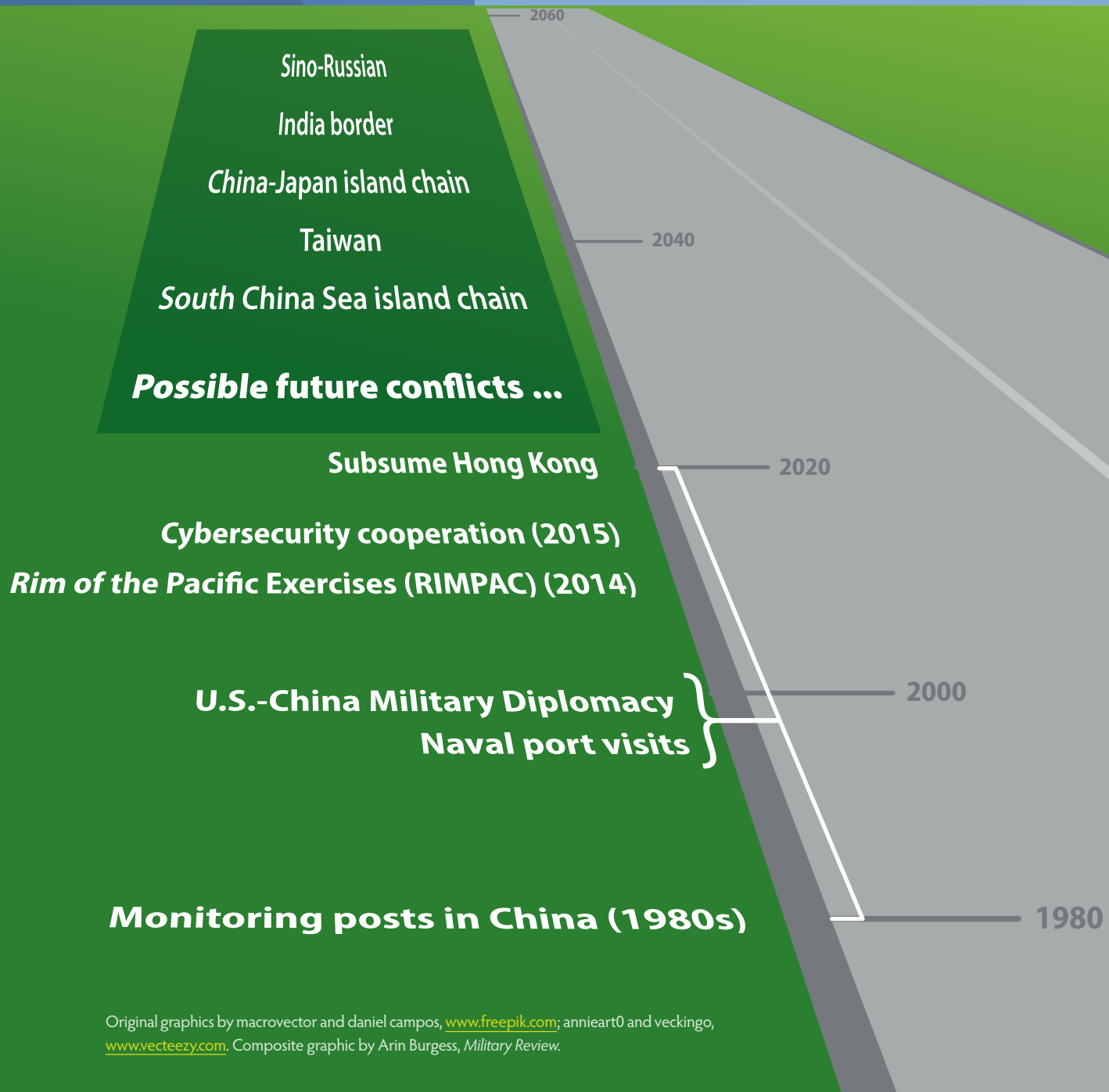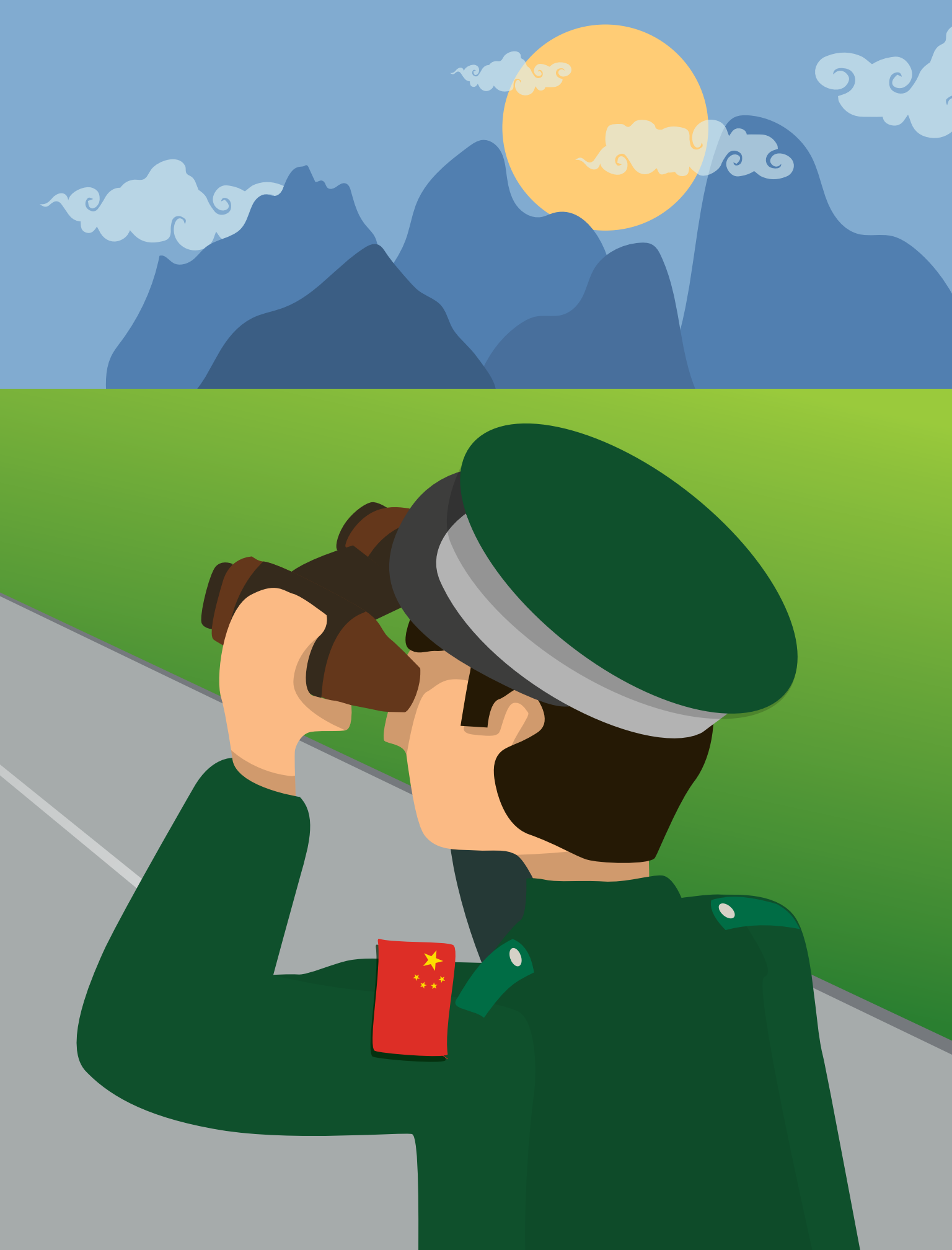
If [they] pay attention to our diplomatic protests, so much the better. If they do not, then after two or three years have passed, we shall be in a much sounder position and can attack them, if we decide to do so.

—Spartan King Archidamus regarding Athens

However, we will never allow separatists for Taiwan independence to have their way, nor allow interference by any external forces. Advancing China's reunification is a just cause, while separatist activities are doomed to failure.

—People's Republic of China Defense Minister Wei Fenghe in 2019

O n 21 October 1975, during the early days of U.S.-China rapprochement, Chairman Mao Tse-tung said to then U.S. National Security Advisor Henry Kissinger that the Taiwan issue would be settled "in a hundred years … I would not want it, because it's not wantable. There are a huge bunch of counter-revolutionaries there. A hundred years hence we will want it (gesturing with his hand), and we are going to fight for it."[1] How do states decide whether to move forward immediately to achieve a goal—such as the People's Republic of China's (PRC) "unification" of Taiwan—or to continue to wait? Should others come to Taiwan's aid? The traditional logic is that a state will act based on its intentions, capabilities, and opportunities. Only when a state intends to reach some goal that it sets, only when it has the military capabilities to achieve the goal, and under the conditions that the right opportunities arise, would a state move forward with a plan such as initiating a cross-Taiwan Strait conflict. While these traditional factors are important, understanding the time horizons of the United States and China is equally, if not more, important in explaining why China has waited this long and whether the United States and others would come to assist Taiwan.

Time horizons have shaped the contours of the U.S.-China relationship to date to include Sino-U.S. rapprochement in the late Cold War, bilateral cooperation in the post-Cold War era, and competition today. In the early days, China's time horizons were long since it was willing to sacrifice short-term gains for long-term growth. The United States' time horizon was short because it was uncertain how China would act once it became a major power, so the long view was not possible. Even through the early 2010s, China was still focused on long-term growth and had not tried to make any moves against Taiwan. At that time, the official U.S. foreign policy toward China was likewise pleasant and could be summarized in only three words: "positive, cooperative, and comprehensive."[2]

I served for five and a half years as a U.S. diplomat responsible for the China and East Asia portfolio during the era of the United States' positive, cooperative, comprehensive relations with China. Working out of the State Department headquarters in Washington, D.C., I helped organize the U.S.-China Strategic and Economic Dialogue, routinely joined military-to-military talks with China such as the Pentagon's Defense Policy Coordination Talks, traveled to Beijing with senior U.S. diplomats to tour China's Peacekeeping Training Center, and even organized State Department meetings for China's "dragons"—each of the three-star generals who commanded China's then seven military regions.[3] Essentially, the U.S. plan at the time was to be friendly toward China and to work together as much as possible in everything. Those were the naively blissful days of U.S.-China cooperation.

While the United States once had a short time horizon and China once had a long time horizon—back then conducive for cooperation—their time horizons are now converging and leading toward confrontation. China's military is now stronger and more confident than before, and it is now more aggressive about achieving immediate goals in the short term rather than shelving disputes in the interest of long-term growth. Island building in the South China Sea, Made in China 2025, and the Belt and Road Initiative that could contribute to building a so-called "string of pearls" to give China's military access throughout South Asia are a few prominent

examples. These examples also show how the U.S. time horizon has shifted as it has gained more information about China's behavior. The U.S. time horizon with regard to China has lengthened as China's long-term plans are becoming clearer and more certain to the United States than before.

With David Edelstein's publication of *Over the Horizon* in 2017, consideration of time horizons is at the cutting edge of international relations research, and it is a long-neglected and little-understood condition that must emerge to present China with its best opportunity to attempt a forced annexation of Taiwan, while time horizons also prompt the United States and others to increasingly resist Chinese aggression.[4] Essentially, we are entering a new era where unification with Taiwan is no longer an issue that China is willing to forgo in the short term to make other economic gains and military development in the long term, nor is the United States willing to continue euphemistically viewing China's military rise. The United States is now more willing to challenge China and therefore increasingly likely to assist Taiwan. In other words, converging time horizons drive China to be more aggressive toward Taiwan, shortening the timeline for unification, while at the same time driving the United States to be more willing to stand up to China's aggression.[5]

Literature Review: Time Horizons, Grand Strategy, and Strategic Rivalry

A brief examination is warranted of existing theories of grand strategy and strategic rivalry as they relate to time horizons.

Time horizons. International relations scholar David Edelstein considers long- versus short-time horizons as proxies for different states—such as the United States and China—and I also adopt his use of the terms.[6] Assigning the terms "rising power" to China and "established power" to the United States also fits the power transition literature, which would continually consider China as the less powerful state to be the rising power until a point when it surpasses the United States as the established power. To Edelstein, leaders with short-time horizons are less worried about the effects of their behavior on the long term, while conversely, leaders with long-time horizons are more aware of how their behavior affects

long-term relations.[7] The United States and China, respectively, used to fit this pattern. In the early years, China, as a possible long-term threat of a rising power, was challenging for the established power to discern since the "long-term intentions of the rising power are characterized by true and unmeasurable uncertainty."[8] Uncertainty reinforces established powers' incentives to focus on the short term, since uncertainty makes it impossible to determine long-term threats and opportunities.[9] Edelstein applies these ideas to U.S.-China relations spanning the decades from the 1970s to the early 2010s to conclude, "The short-term rewards of cooperation combine with uncertainty about the future to make cooperation not only possible but likely. Such cooperation is not naïve nor is it irrational. It is, instead, a by-product of the incentive that state leaders face to capture the short-term rewards despite the long-term risks of doing so."[10]

I adopt Edelstein's point about uncertainty, and I build on it to argue that established powers have a short time horizon at the beginning phases of cooperation but gain more information about the behavior of the rising power later, so the established power later achieves a convergence of short- and long-time horizons. I also argue that rising powers do not have such uncertainty about the long-term view of how the established power would behave with immense power in the future because they can already observe how the established power is acting as it already has immense power. I, therefore, contribute to the international relations theory literature by arguing that while established powers only have a short-term view in the beginning of cooperation with a rising power, a rising power is focused on the

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long-term view at the beginning of cooperation. Over time, the established power starts to gain a long-term view, and the rising power asserts short-term interests as both sides move toward what I call a convergence of time horizons—both states incorporating short and long time horizons in assessing one another—with an effect to accelerate history for China's ambitions toward

are even less sure when it comes to estimating their peers' future intentions."[16] John Mearsheimer argues that states determine which other states threaten their security by focusing "on the offensive capabilities of potential rivals, not their intentions," since "intentions are ultimately unknowable."[17] With this in mind, time horizons couple with capabilities and possibly

> " Unification with Taiwan is no longer an issue that China is willing to forgo in the short term to make other economic gains and military development in the long term. "

Taiwan and also spur the United States and others to resist China by helping Taiwan (see table, page 15).

Grand strategy. Such foreign policy shifts are no less than shifts in states' grand strategies, which take into account other states' intentions and capabilities. According to Daniel Drezner, Ronald Krebs, and Randall Schweller, "Grand strategy is a roadmap for how to match means with ends."[11] A grand strategic approach holds that careful planning at the center produces the best results and that being too flexible is better than being too rigid, as grand strategy is typically the purview of theater commanders, special envoys, and subject-matter experts.[12] Through the course of such careful planning, some scholars believe that it is important to pay attention to how states signal their intentions to one another. Andrew Kydd argues that costly signals—which are costly changes in the aggregation of capabilities and types of forces that a country employs—can communicate benign intentions.[13]

Yet, other scholars find that it is more important to focus on a state's offensive military capabilities than to try to discern intentions. A rising power like China can send mixed signals and thereby quietly rise without provoking a negative response. Oriana Skylar Mastro describes China as a "stealth superpower."[14] After all, Deng Xiaoping famously said, "Hide your strength, bide your time, never take the lead."[15] Sebastian Rosato argues that intentions of great powers are inscrutable—that "great powers cannot confidently assess the current intentions of others based on their domestic characteristics or behavior, and they

intentions to alter U.S. and Chinese grand strategies toward one another. To counterargue that China is behaving more boldly because it is now powerful is precisely my point: China's military and economic capabilities have vastly improved, and this also corresponds to the shift in China's time horizon.

Strategic rivalry. One of the more contentious discussions in academia is whether the United States and China are currently rivals and when exactly they have been rivals throughout recent history. *Military Review* has recently featured heated debates about whether the United States and China are in conflict or competition.[18] For scholars, identifying which exact states can be considered strategic rivals and whether the United States and China are strategic rivals is important because a small number of strategic rival dyads engage in a disproportionately large percentage of wars. Strategic rivals have fought in 77.3 percent of all interstate wars since 1816, 87.2 percent of all interstate wars in the twentieth century, and 91.3 percent of all interstate wars in the post-1945 era.[19]

In academic terms, Paul Diehl and Gary Goertz formulate a list of enduring rivalries and record that the United States and the People's Republic of China were rivals up until 1972 but not after.[20] William Thompson calls the U.S.-China pair "consensus rivals" since there is a high level of agreement between Thompson's strategic rivalry, Goertz's enduring rivalries, and Bennett's interstate rivalry data sets that there is or was once a strategic rivalry between these states.[21] In policy terms, as of 2017, the White House has officially stated that "great power

competition returned. China and Russia began to reassert their influence regionally and globally."[22]

Implications for Cross-Strait Conflict

Convergence of time horizons accelerates China's plans for Taiwan. In reference to Deng's famous "hide and bide" quote, former Australian Prime Minister Kevin Rudd held a question-and-answer session for Bloomberg titled "Emperor Xi's China Is Done Biding Its Time."[23] In terms of military capabilities, China's military has successfully modernized over the recent decades culminating in the recent and complete reorganization of China's seven military regions into five new theater commands. In terms of intentions, in the opening quote of my article, I show that Mao made it clear four and a half decades ago that China would settle the Taiwan issue at some point. I also quoted the current Chinese defense minister's 2019 statement that China "will never allow separatists for Taiwan independence to have their way … Advancing China's reunification is a just cause."[24] As time horizons, capabilities and intentions align with a PRC decision to take military action against Taiwan, and then it becomes simply a matter of opportunity.

Table. Time Horizons Based on Power and Phases of the Relationship

		Phases	
		Early (1970s to 2000s)	Late (especially late 2010s)
Power dynamics	United States as established power	Short-time horizon	Converged short-long horizon
	China as rising power	Long-time horizon	Converged long-short horizon

(Table by author)

"China's goal is in a time of crisis is to deny the U.S. access to the area within the 'first island chain' (the South China Sea bounded by a line running from the bottom of Japan, encompassing Taiwan, and passing to the west of the Philippines). But it also seeks to restrict access to the outer 'second island chain' with weapons that can reach as far as the U.S. bases on Guam. This overall strategy can be bolstered by Chinese land-based aircraft and missiles." (Excerpt and map from Jonathan Marcus, "Is the U.S. Still Asia's Only Military Superpower?," BBC, 25 August 2019, https://www.bbc.com/news/world-us-canada-49423590)

President Gerald Ford (*center*) and daughter Susan watch as Secretary of State Henry Kissinger shakes hands with Chairman of Chinese Communist Party Mao Tse-tung 2 December 1975 during a visit to the chairman's residence. (Photo courtesy of the Gerald R. Ford Library)

Considering likely Chinese invasion scenarios, Taiwan Ministry of National Defense's (MND) most recent *2019 National Defense Report* names China as the sole military threat against Taiwan, and the report outlines China's three elements for initiating a cross-strait conflict. First, Taiwan's MND anticipates China would implement blockade operations, since China has continually conducted joint sea control operational exercises and deployed various antiship missiles.[25] Second, Taiwan's MND expects China to conduct firepower strikes to shock, awe, and paralyze Taiwan since China's multiple launch rocket systems can cover the entirety of Taiwan and Taiwan's offshore islands.[26] Third, Taiwan's MND expects China to undergo a joint amphibious landing as the Chinese People's Liberation Army (PLA) continues to conduct joint landing drills with amphibious assault vehicles and landing platform docks.[27] To carry out these three goals, China is improving reconnaissance by deploying reconnaissance satellites and over-the-horizon radars; preparing cyber, electronic warfare, and disinformation tools; improving command and control of joint military operations; and deploying China's Dong Feng antiship

missiles to deny involvement of foreign forces.[28] Taiwan has adjusted its military throughout past decades to deal with each of these anticipated threats.[29]

Ian Easton, author of *The Chinese Invasion Threat*, paints a more complete picture by hypothesizing that China would make the following sequence of moves against Taiwan:

- China would create a war plan to topple Taiwan's government.
- The PLA would conduct drills simulating surprise amphibious assaults.
- The PLA would mobilize Chinese military units along the coastline of Fujian Province.
- Chinese Communist Party leadership would announce live-fire military drills along the Taiwan Strait.

- China would close international shipping lanes along the strait for safety during drills.
- Beijing state-run media would downplay drills as posturing to alleviate concerns.
- Chinese troops would clandestinely board civilian ferries and roll-on/roll-off ships that routinely pass through the Taiwan Strait.
- Ships would move toward Taiwan on the day of the exercise and only tip hand at the last moment.
- Ostensibly civilian ships would offload mechanized infantry and tanks onto Taiwan.
- The PLA would crush local resistance and deliver follow-on reinforcement.
- The PLA would continue to execute cyberattacks, missile strikes, targeted assassinations, submarine ambushes, and heavy bombing to keep Taiwan's government paralyzed.[30]

The Way Forward

The key implications of U.S. and Chinese converging time horizons is that China is now less willing to wait on a goal it can achieve in the short term, such as invading Taiwan; and the United States and others are more willing to confront a rising China, such as in defense of Taiwan. In this shifting time horizon context, the U.S. military should be trained, equipped, and prepared to execute any option selected by U.S. civilian and military decision-makers regarding providing assistance to Taiwan.

China would focus on at least two top priorities to accomplish annexation of Taiwan without letting the situation expand into a larger conflict, and the goal for other militaries would be to quickly and effectively counter these plans if they chose to intervene on Taiwan's behalf. One top priority to avoid expanding the conflict is for China to take swift action, leading

China's minister of national defense Gen. Wei Fenghe at the Association of Southeast Asian Nations (ASEAN) Defense Ministers' Meeting 18 October 2018 in Singapore. (Photo by Lisa Ferdinando, Department of Defense)

to a fait accompli. Quickly establishing a sense of fait accompli would make the people of Taiwan and others in the world feel a sense of hopelessness to change the Chinese invasion situation. Easton explains this how China could "flash invade" Taiwan.[31] China is indeed capable of fighting a speedy war, but there are few contemporary data points to draw from so we must reach farther back in history. The last war that China fought, against Vietnam in 1979, lasted a total of only twenty-seven days and is a testament to China's speediness.[32] During the Chinese Civil War in the 1940s, Mao wanted to act fast against the nationalists before the United States could decide to become involved.[33] The communist forces speedily took over the major port cities—Shanghai, Qingdao, and others—as a top priority to prevent the United States from establishing a foothold in China and assisting Mao's rival Chiang Kai-shek.[34] It would make the most sense that China would also attempt to take quick action in a Taiwan invasion scenario since China still holds similar fears of U.S. involvement. A caveat is that these examples are from many decades ago, and Mao is no longer with us today as China's paramount strategist. Yet, data points about warfare during China's contemporary history are sparse, without reaching back to pre-World War II Republican or dynastic eras. Another caveat is that just because China's attack is quick does not make it necessarily successful. China could attack quickly and lose quickly if Taiwan mounts a successful defense, even without foreign intervention.[35]

If China somehow manages to successfully invade Taiwan and meets local resistance, China's other top priority to prevent the situation from expanding into a larger conflict is to convince the global audience that

the people of Taiwan prefer Chinese rule rather than its past democracy. This narrative has been in existence since the 1940s when China used exhortations that it will "liberate" Taiwan, as if liberation by China is always an improvement on Taiwan's circumstances. China would apply to Taiwan the same playbook that China uses in Tibet and Xinjiang. News articles from China attempt to spin its Uyghur forced-internment camps as if they were education classrooms by officially calling them "vocational education and training centers" where people can freely come and go.[36] Information coming out of China about Tibet and Xinjiang focuses on how the Chinese Han majority has helped those regions with economic development and how they are now wealthier and better off than before.[37] Applied to Taiwan, China would likewise try to convince the world that Taiwan is better off under China's rule than what it would claim was Taiwan's prior tumultuous democracy. U.S. decision-makers and others in the world should be wary of such claims of harmonious relations between the people of China and Taiwan if and when the time comes. Of course, there are countless other priorities, but these two are most relevant to the question of how China might accomplish annexation without letting the situation expand into a larger conflict.

According to the current, ambiguous U.S. policy regarding defending Taiwan, the United States would come to a decision about whether or not to assist Taiwan only when a possible invasion approaches.[38] The U.S. government is purposefully ambiguous about making such a decision until a point in time approaching conflict to deter China's adventurism toward Taiwan and also to constrain Taiwan from making provocative moves toward de jure independence.

When the time comes to decide, the rationalist cost-benefit analysis case for U.S. intervention to assist Taiwan is built on reasoning such as

- security—Taiwan has been a loyal partner to the United States and was even previously a U.S. mutual defense treaty ally up until 1979;
- economics—Taiwan usually ranks as the tenth largest trading partner of the United States;
- regime type—Taiwan is a liberal constitutional democracy with free and fair elections like the United States; and
- audience cost concerns—Japan, South Korea, and Australia will be more skeptical of U.S.

commitment to them if the United States backs away from Taiwan (though Taiwan is no longer technically a treaty ally like the rest).

On the other hand, the United States may decide not to intervene because it does not want to sacrifice its troops in another foreign conflict, it may want to avoid a direct kinetic conflict with nuclear-armed China that could escalate to frightening levels, or other so-called unit-level characteristics like the personal views of the U.S. leaders toward China and Taiwan at the time.

Aside from the United States, others that could intervene to assist Taiwan would most likely include Japan, South Korea, Australia, and possibly the other NATO allies of the United States. Russia and North Korea might step in to help China. These proxy configurations would start to resemble the Korean War and Vietnam War from the Cold War era and geopolitics would return "back to the future," as John Mearsheimer predicted.[39] China has long accused the United States of maintaining a "Cold War mentality," so it would be ironic if it was China's own actions of invading Taiwan that brought the world back to the Cold War.[40]

Conclusion

Almost five decades ago, Mao claimed that China would be willing to wait a hundred years to settle the Taiwan question. Three decades ago, Deng cautioned his Chinese people to "hide your strength, bide your time." In those times, China's time horizon was long, and it was willing to hold off on short-term interests for long-term growth. The United States was similarly gracious toward China. To take a time horizon approach toward cross-strait relations today is to recognize that China is now more interested in achieving immediate goals—such as what it calls Taiwan "reunification"—than taking its previous approach of holding off for the sake of long-term priorities such as economic growth and military modernization. For the United States, a time horizon approach means viewing China with less uncertainty than in the past. This also means the United States should be even more ready to deal with China's challenges, particularly regarding Taiwan. The U.S. military must be prepared to deal with any contingency.

One decade ago, I brought China's "dragons"—the seven heads of China's seven military regions—into the U.S. State Department headquarters. The feeling of leading seven Chinese three-star generals through the

State Department was an unforgettable moment for me as a U.S. diplomat. By instinct and training, the dragons fell into an orderly line right behind me, perfectly spaced two feet apart from one another as they walked in one long formation with me at the head of the line. As I led them through the building and up to the deputy secretary of state's conference room, the eyes of other international diplomats gathered in the U.S. State Department foyer were on me and the Chinese generals with Chinese flags stitched on the sleeves of their uniforms and multiple stars on their shoulders. The meeting between senior U.S. and Chinese officials was one that I organized, for which I wrote the talking points, and during which I spoke up to help answer tough and nuanced "if raised" foreign policy questions from the group of Chinese generals.

I look back fondly on those years of close U.S.-China cooperation as part of myself wishes we could return to those pleasant days. Yet, trend lines and time horizons are moving in the opposite direction. Time horizons are now converging such that China will no longer forego short-term interests for long-term gains, and the United States can no longer afford to have any idealistic illusions about China's intentions and capabilities—particularly vis-à-vis Taiwan. ∎

Notes

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A woman walks past a television in New Taipei City 2 January 2019 that shows China's President Xi Jinping making a speech commemorating the fortieth anniversary of a message sent to Taiwan in 1979 that asserted Taiwan's unification with the mainland is "inevitable." Xi warned against any efforts to promote the island's independence, saying China would not renounce the option of using military force to annex it. Xi continued, "After peaceful reunification, Taiwan will have lasting peace and the people will enjoy good and prosperous lives. With the great motherland's support, Taiwan compatriots' welfare will be even better, their development space will be even greater." (Photo by Sam Yeh, Agence France-Presse)

How to Counter China's Disinformation Campaign in Taiwan

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SUBMISSION

China wants to shift Taiwan's public opinion to adopt a pro-unification stance. The People's Republic of China (PRC) has held the goal of unifying with Taiwan since the Chinese Civil War of 1945–1949, and Beijing's toolkit has expanded since the days of Mao Tse-tung's periodic

initiation of cross-strait artillery fire. Today, Taiwan experiences near-constant threats from China, including those to its media and social media landscape. Taiwan receives the most foreign government disseminated disinformation out of all the countries in the world.[1] The risk of conventional war is real, but Taiwan's more urgent threat comes from China's attacks on its media independence and distribution of disinformation targeting Taiwanese elections.

Definition and Objective

For the purposes of this article, we will use *Science Magazine*'s definition of disinformation as "false information that is purposefully spread to deceive people."[2] This definition, incidentally, is popular among PRC netizens and scholars and is helpful for understanding the PRC's disinformation campaign in Taiwan.[3] The objective of Chinese disinformation in Taiwan is to convince Taiwan's people that unification with China is their best (and only) option. This takes form in terms of economics, where the Chinese argue that Taiwan would be better off financially under unification; foreign relations, where China claims that the Taiwanese government cannot offer adequate diplomatic services and protection to its citizens; and culture, where China spreads disinformation about eligibility for the Olympics if athletes competed under "Taiwan" rather than "Chinese Taipei."[4] The PRC also uses disinformation to discredit individuals who, in the PRC's perception, threaten its agenda. The targets of these disinformation campaigns range from Taiwanese President Tsai Ing-wen to diplomatic allies, celebrities, journalists, and prominent supporters of Taiwan's independence.[5]

China's Toolkit

Early PRC cross-strait propaganda methods included using megaphones to broadcast announcements and playing music to encourage defections in the 1950s.[6] Technology and tactics have advanced significantly since then, and the PRC started what it calls "information warfare" (信息化战争) against Taiwan in the early 2000s. The PRC encouraged sympathetic Taiwanese businessmen to purchase media outlets, bought advertising in Taiwan's media to influence public opinion, and pressured media proprietors who had investments in China to stop publishing criticism of the PRC.[7]

Due to its financial resources, the PRC has made significant progress in infiltrating Taiwanese television and print media, even though Chinese entities cannot directly own Taiwanese media companies without government approval.[8] In 2008, pro-Beijing businessman Tsai Eng-meng, the owner of snack food company Want Want, purchased China Times Group, a media company that owns one newspaper and two TV channels.[9] Since the purchase, reporting from *The China Times* took on a tone less critical of China and decreased its coverage of human rights issues in China.[10] Want Want's China subsidiaries received NT$2.9 billion (US$96 million) in subsidies from the PRC government between January 2017 and March 2018, indicating the PRC's leverage against businessmen like Tsai.[11] In the social media realm, the PRC has made even more direct "investments" by buying the social media accounts of Taiwanese politicians and social media influencers.[12] Fan pages with large amounts of followers suddenly switched over to using simplified Chinese and began helping PRC disinformation go viral (the Taiwanese use traditional Chinese characters). Influencer accounts on Professional Technology Temple (PTT), a local online bulletin board, sold for as much as US$6,500 prior to the 2018 elections.[13]

PRC influence operations also use social media platforms to spread pro-unification and anti-Democratic Progressive Party (DPP) content. In particular, YouTube is a popular platform among Taiwanese internet users, and disinformation on YouTube has become a greater threat vector since Facebook and Twitter have become more proactive in removing fake content.[14] Disinformation on YouTube is generally more deliberate, as it is more difficult to create and edit a video than it is to write a post or make a meme. However, Puma Shen, an assistant professor at National Taipei University, notes that China's operations on YouTube

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In this 27 April 2012 image, pages of rival Taiwan newspapers *Apple Daily* (*top half*) and *The China Times* depict each other's owners in a fight for ownership of a major chunk of Taiwan's media outlets. Hong Kong's media mogul owner of *Apple Daily* and fierce China critic Jimmy Lai was calling foul as Want Want Group chairman Tsai Eng-meng was seeking to purchase a local cable TV network system in a $2.4 billion deal that would significantly bolster his influence in Taiwan and his stature in China. Tsai , who had big business interests in China, had been frank about his aim of trying to monopolize media in Taiwan to promote annexation of Taiwan to China. (Photo by Associated Press)

are not very sophisticated. For example, some videos aimed at a Taiwanese audience still had simplified characters in their closed captions.[15]

Some recent examples of Chinese disinformation on social media include the following:

- Posts on PTT claiming that the Chinese consulate rescued stranded Taiwanese tourists in Japan during Typhoon Jebi in September 2018 but only if they identified as "Chinese."[16] The disinformation was intended to spark public anger against the Taiwanese consulate and to portray the Taiwanese government of being incapable of rescuing its

citizens. This story ended tragically when Su Chii-cherng, the director of Taiwan's representative office in Osaka, Japan, committed suicide after receiving criticism online for not providing sufficient assistance to Taiwanese citizens.[17] The IP address of the original PTT posts traced back to Beijing.[18]

- Posts "revealing" that the Taiwanese government lied about the number of COVID-19 cases and deaths in Taiwan.[19] This is an attempt to discredit the Taiwanese government's handling of the COVID-19 pandemic, especially after Beijing's own mistakes in its early COVID-19 response.

These posts showed linguistic characteristics of having originated in the PRC, and some were even written entirely in simplified Chinese.[20]

- A LINE (messaging application popular in Taiwan) post claiming that President Tsai Ing-wen's government would take away people's pensions if they traveled abroad without a declaration. This is another example of an attempt to discredit the DPP government. The original article traced back to a content farm in China.[21]

banning discussion of the Tiananmen Massacre, the Dalai Lama, Falun Gong, and broader criticism of China. Eventually, SET canceled *Dahua Xinwen* in May 2012, months after it began negotiations with Chinese authorities on broadcasting its television dramas in the PRC.[23] In online media, pro-independence outlets are almost always blocked in China, while pro-unification outlets are accessible. This impacts the ability of pro-independence media outlets to generate online advertising revenues.[24]

A 23 April 2019 Chung T'ien (CTi) Television report displays a map that shows Taiwan as a part of China. CTi is a major cable TV network owned by the Want Want China Times Media Group. It drew wide criticism from the Taiwanese public in response to the newscast. The channel has been fined numerous times by the Taiwanese National Communication's Commission for broadcasting inaccurate and defamatory information. Many called for CTi to be once again fined for inaccurate and biased reporting favorable to the People's Republic of China. (Screenshot from CTi)

Finally, the PRC uses economic leverage against Taiwanese media outlets. Newspapers that carry advertisements from PRC commercial entities tend to have a more pro-Beijing message.[22] SET, a major cable television station, previously broadcasted a DPP-friendly political talk show *Dahua Xinwen* (Big Talk News). The network began restricting the topics allowed on the program after Kuomintang (KMT) candidate Ma Ying-jeou's election in 2008 and also began

The PRC's disinformation tactics take advantage of weaknesses in Taiwan's media landscape. First, the Taiwanese media environment is highly polarized, and it is easy to exploit controversial issues such as pension reform and same-sex marriage.[25] Disinformation on these issues can be domestic, further complicating the attribution concerns.[26] Taiwan has a high level of press freedom and a competitive media landscape. These indicators create an environment where the PRC can

spread disinformation with little risk of censorship or penalty.[27] Finally, Taiwan has an overwhelming number of internet users; by December 2018, 93 percent of Taiwan's population surfed the World Wide Web.[28] More than three-quarters of Taiwan's population use their smartphones to access the news.[29]

Attribution

As with any effort to fight disinformation, attribution of malign social media activity can be difficult. Even if it is possible to identify a post as originating in China, it is still hard to tell if it was a lone actor or an organized government effort. For example, there is evidence that some of the misinformation and disinformation on COVID-19 was a grassroots effort that stemmed from anger at Taiwan over its decision to limit exports of face masks to China, rather than a government attack.[30]

Nonetheless, there are strong indicators of a Chinese government-led effort to affect Taiwanese elections and social discourse. Rumors that major airlines were no longer accepting the Republic of China's passport as proof of identity for international flights, although ultimately not attributable, are consistent with the PRC's disinformation themes and tactics.[31] The PRC's documented recent actions in Hong Kong use tactics of the same playbook and espouse similar themes—a goal of unification and anything opposing unification as foreign interference (from the United States) or terrorism.[32]

What Is Taiwan's Response?

Taiwan has not been sitting idle as the PRC expands its influence operation into the country's media ecosystem. Both the Taiwanese government and civil society have stepped up efforts to combat disinformation by banning Chinese internet media platforms, passing legislation on election interference, organizing efforts to fact-check news, and educating the public on media literacy.

The most direct action that the Taiwanese government has taken against China is banning select Chinese media platforms, such as iQIYI (Baidu's video platform) and Tencent video, from the Taiwanese market. The DPP government cites the prevalence of disinformation spread to influence the January 2020 presidential elections as the reason for these bans. However, the bans have sparked concerns with regard to freedom of speech, and the effectiveness of such bans is debatable as the PRC can simply upload disinformation content on YouTube or Twitch, platforms that remain accessible and are popular among the Taiwanese public.[33]

The Taiwanese government also confronted China's disinformation campaign through other executive and legislative action. The Ministry of Justice established the Big Data and Public Opinion Task Force. Security institutions, including the Ministry of National Defense and the National Security Council, have coordinated response groups to Chinese disinformation.[34] The Legislative Yuan, Taiwan's legislative body, passed laws in response to the PRC's 2018 election interference. The Public Media Act, passed in 2019, addressed board governance, accountability, and financial independence for public media groups.[35] The legislature also updated the Social Order Maintenance Act to criminalize the spread of misinformation online.[36] Most visibly, the Taiwanese legislature passed the Anti-Infiltration Act two weeks before the 2020 presidential election, preventing "foreign hostile forces" from making political donations, spreading disinformation, staging campaign events, or otherwise interfering in elections.[37] Although the act does not mention China by name, its target is Chinese actors and Taiwanese citizens with connections to China.[38] The new law has already succeeded in driving out Master Chain, a pro-China media outlet with funding connections to China.[39]

Taiwan has an active civil society engaged in fighting disinformation. Civil society organizations that work on disinformation include the following:

- The Taiwan FactCheck Center, a nonprofit initiative launched in 2018 by the Association for Quality Journalism and Taiwan Media Watch. According to the center's website, it does not accept donations from governments, political parties, and politicians in order to maintain its independence.[40]
- The Fakenews Cleaner, a nonprofit founded after the 2018 Taiwanese elections that teaches media literacy to the elderly. Volunteers from the organization conduct in-person workshops at community centers and senior centers to bridge the generational gap in social media usage.[41]

Finally, Taiwan is educating its citizens as a part of a long-term strategy of fighting disinformation.

Education is a key indicator of resilience to fake news, and in particular, media literacy education is effective in helping individuals identify misinformation and disinformation.[42] In Joseph Kahne and Benjamin Boyer's study of nationally representative youths in the United States (ages fifteen to twenty-seven), participants who reported the most media literacy education were also the ones who most consistently spotted the difference between the evidence-based posts and the misinformation they were shown.[43] Like Finland, Sweden, and the Netherlands, three countries that rank the highest in the Open Society Institute's Media Literacy Index (which only covers Europe), Taiwan has a media literacy curriculum in schools to teach students about digital literacy and misinformation and disinformation.[44] Audrey Tang, Taiwan's digital minister, supports media literacy as the most useful tool for educating people on identifying misinformation and disinformation.[45]

Case Study: Taiwan's 2018 and 2020 Elections

Taiwan's "nine-in-one local" elections in November 2018—somewhat akin to U.S. midterm elections—were a big loss for the DPP. The KMT reversed the results of the 2014 election results and won thirteen of twenty jurisdictions.[46] This was an ideal result for the PRC, which had been ramping up pressure against Taiwan since the election of the DPP's Tsai Ing-wen as president in 2016. Tsai resigned as the DPP chairperson after the defeat.[47]

It is impossible to attribute the DPP's electoral defeat directly to interference from Beijing, but disinformation may have been effective in exaggerating existing fractures in Taiwanese politics, including LGBTQ issues and the urban-rural divide.[48] Tsai's government was well aware of the PRC's attempts at election interference and warned the public on her own social media platforms.[49] In October 2018, the Ministry of Justice investigated cases of candidate campaigns allegedly receiving funding from the Chinese government or its affiliate organizations.[50] Despite these efforts, public awareness of the problem lagged. A survey conducted one week after the elections found that 52 percent of respondents did not believe that there was foreign interference in the elections or did not know enough to judge.[51]

The Taiwanese government learned the lessons of the 2018 election and was successful in countering the

PRC's disinformation campaign the next time around. In the weeks before the 2020 legislative election, Tsai again sounded the alarm about PRC-sponsored disinformation in Taiwanese media and social networks.[52] In response, the Taiwanese government strengthened its institutions: every Taiwanese ministry established a team to detect disinformation campaigns and respond rapidly with a counternarrative. The government created a well-funded Department of Cyber Security to guard websites and databases against hackers.[53] Taiwan also worked with social media companies to educate the public about misleading social media content. For example, Facebook began tagging fake articles with a correction from the Taiwan Fact Check Center and alerting users who shared the article that it contained inaccurate information.[54] The Ministry of Justice fined both individuals and television media companies who shared misinformation.[55] These measures, along with outside events, propelled Tsai to reelection in a landslide victory against KMT candidate Han Kuo-yu, and the DPP maintained its majority in the Legislative Yuan.[56]

What Has the United States Done?

The United States and Taiwan are already strengthening cooperation in combating disinformation in Taiwan. In December 2016, U.S. Congress established the Global Engagement Center (GEC) to counter foreign propaganda and disinformation.[57] The GEC has been collaborating with Taiwan as a part of these efforts.[58] In April 2019, the GEC accepted funding applications to crowdsource counterpropaganda work in Taiwan.[59] The GEC also hosted a U.S.-Taiwan Tech Challenge, an open competition for companies to win a GEC grant used for countering propaganda and disinformation in the region. Trend Micro Taiwan, a company working on information security with the Criminal Investigation Bureau, won the top prize of US$175,000.[60]

More broadly, the United States has passed bipartisan legislation advancing its commitment to U.S.-Taiwan relations. The Taiwan Travel Act, passed and signed into law in early 2018, allows U.S. officials to meet with their Taiwanese counterparts and allows high-level Taiwanese officials to officially enter the United States and meet with officials.[61] The Taiwan Allies International Protection and Enhancement

Baybars Örsek (*top*), director of the International Fact-Checking Network at the Poynter Institute, meets with Taiwan fact-checkers in December 2019 for a workshop at the Taiwan FactCheck Center in Taipei. (Photo courtesy of Baybars Örsek's Twitter, @baybarsorsek, https://twitter.com/baybarsorsek/status/1202562487591112704)

Initiative (TAIPEI) Act, passed in 2019, requires the State Department to report to Congress on steps the State Department has taken to help strengthen Taiwan's diplomatic relationships and partnerships around the world annually.[62] These legislations reinforce the United States' support for Taiwan's democracy and protects Taiwan's international standing.

How Can the United States Help?

Taiwan has proven itself capable in combating the PRC's use of disinformation to interfere in the 2020 elections, but the PRC is not stepping back. Recently, the PRC has been spreading disinformation about COVID-19 in Taiwan to discredit the Taiwanese government, and we can be certain that these efforts will continue. The United States can support Taiwan through the following ways:

Support relationships between U.S.-based social media companies and the Taiwanese government and civil society groups. The most popular social media platforms in Taiwan are U.S.-based companies. Facebook and YouTube were the top two social media outlets for Taiwanese internet users (as of January 2019), and Facebook Messenger, Instagram, Twitter, and WhatsApp were also in the top eight. WeChat was the only Chinese app on the list, and only 32 percent of internet users reported using the platform.[63] Twitter, Google, and Facebook are already working with the Taiwanese government on identifying fake news on their platforms. The United States should encourage these efforts by establishing an official channel for cooperation and make public data or research resulting that can help American and Taiwanese researchers

attribute disinformation to the PRC and better educate Taiwanese citizens in identifying fake stories.

Increase funding for grants to Taiwanese civil society groups that fight disinformation. Although not all of Taiwan's fact-checking nonprofits accept foreign government donations, the United States should increase grant funding for those that wish to apply. These organizations can enhance their

media space."[65] By setting up a forum to facilitate dialogue between Taiwan and our European allies and partners, the United States can help Taiwan's efforts to combat Chinese influence and provide it with the opportunity for deeper international engagement.

Pursue cooperation in developing artificial intelligence (AI) to help combat disinformation. Fact-checking today is still a predominantly manual

> Disinformation, election interference, and information warfare are global problems not limited to Taiwan, and international organizations and nongovernmental organizations will be establishing rules and norms for internet governance and wireless communications.

effectiveness with additional resources, such as by providing better training for their volunteers, employing more full-time staff to oversee and organize their efforts, and providing more resources for the public to help them navigate Taiwan's traditional and social media landscapes.

Facilitate relationship building between Taiwan and European countries such as Finland and Latvia that are successful in combating disinformation. Taiwan is not the only U.S. ally that is facing a threat of hostile social manipulation. NATO allies and the European Union (EU) face a similarly elaborate and targeted disinformation threat from Russia. The NATO Strategic Communications Centre of Excellence runs a training program on advanced counterpropaganda techniques to help member states assess and counter Russian propaganda in Eastern Europe.[64] The EU established the East StratCom Task Force in 2015. The task force "develops communication products and campaigns focused on better explaining EU policies in the Eastern Partnership countries (Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine) … supports wider EU efforts aimed at strengthening the media environment in the Eastern Partnership region … [and] reports and analyses disinformation trends, explains and exposes disinformation narratives, and raises awareness of disinformation coming from Russian State, Russian sources and spread in the Eastern neighborhood

process, but Taiwan has already begun to use AI to identify fake news by automatically identifying and deleting content.[66] It is critical for Taiwan to be ahead in this technological race. China uses AI to generate and spread disinformation, and its ability to do so will only improve.[67] The PRC could develop AI with the capabilities to generate disinformation faster than Taiwan can identify it, and Taiwan must maintain a technological advantage in AI against the PRC to preserve its independent media environment. Tech companies can also use AI to identify the origins of the disinformation activity and collect data on the prevalence of disinformation from China.[68]

Train a strong cohort of Mandarin speakers who can study Chinese disinformation tactics and engage our Taiwanese partners. Studies have shown that language usage in satire, hoaxes, and propaganda is different than that of real news stories.[69] A strong grasp of language and culture is critical to understanding disinformation and developing effective tactics in response. The United States should train and hire more Chinese-speaking analysts who can work with Taiwanese teams to monitor Taiwanese social media activity and identify disinformation. These linguists can also bring back best practices for our own fight against Chinese disinformation and election interference. Taiwan, as the main target of Chinese disinformation, understands Chinese information warfare better than any other nation, and a strong cohort of

Mandarin linguists in our government can help us access this wealth of knowledge.

Advocate for Taiwan's participation in international organizations. Disinformation, election interference, and information warfare are global problems not limited to Taiwan, and international organizations and nongovernmental organizations will be establishing rules and norms for internet governance and wireless communications. China will no doubt push for rules in accordance with its own interests and authoritarian values.[70] Taiwan is a U.S. ally in this conversation, and the United States should support Taiwan's participation in the United Nations so it can engage in discussions on these resolutions.

In particular, the United States should encourage Taiwan's participation in future discussions on security issues in communications infrastructure. The Taiwanese government recognizes Chinese-built 5G networks as a threat to Taiwan's cybersecurity, and any backdoor access companies like Huawei may have could disable Taiwan in military conflict. In light of these concerns, Taiwan chose Nokia (Finland) and Chunghwa Telecom (Taiwan) to deliver its first 5G networks.[71] Taiwan also banned Huawei and ZTE equipment for government employees.[72] By joining international discussions such as the Prague 5G Security Conference, Taiwan would be able to share these security concerns directly with European countries.

More participation in international organizations will also allow Taiwan to have better information to make policy decisions domestically and to fight disinformation from Beijing. A recent and notable example of this is Taiwan's lack of membership in the World Health Assembly, the decision-making body for the World Health Organization. Participation in the World Health Assembly would have allowed Taiwan to access more information about COVID-19 rather than going through

Military Review

WE RECOMMEND
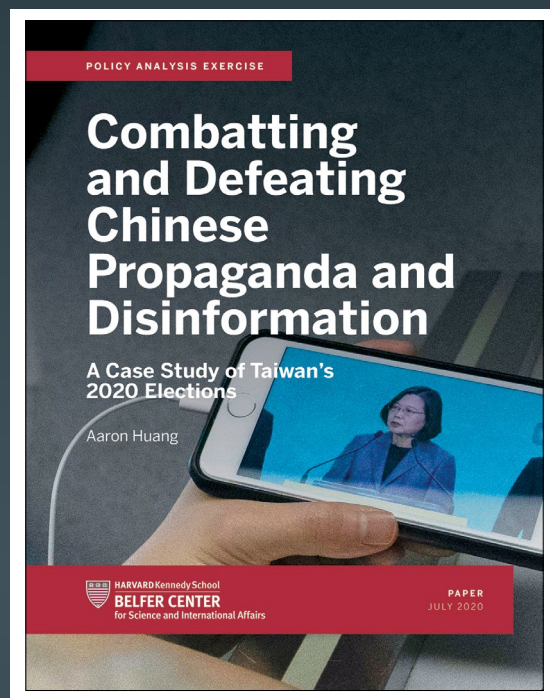
Chinese communist propaganda and disinformation synchronized with other aggressive initiatives such as China's Belt and Road Initiative have the potential to manipulate the world's perception of Beijing, distort America's image globally, and reshape international norms and values on human rights, rule of law, and concepts of national sovereignty. In the interest of exposing China's malign propaganda methodologies, *Combatting and Defeating Chinese Propaganda and Disinformation* provides a case study of China's attempted efforts to control Taiwan's 2020 presidential and legislative elections. It analyzes China's disinformation capabilities and vulnerabilities as it details how Taiwan was able to nullify the effectiveness of information campaigns against opponents of Chinese communist influence in Taiwan. The study aims to promote a fuller understanding of such disinformation operations to enable the U.S. government to better protect America against China's interference in its elections as well as other socioeconomic and sociopolitical institutions, and counter Chinese Communist Party narratives around the world. To view this study, visit https://www.belfercenter.org/publication/combatting-and-defeating-chinese-propaganda-and-disinformation-case-study-taiwans-2020.

Beijing or relying on the United States to get information and resources.[73]

Conclusion

Although there is always the threat of conventional war, the PRC poses a more urgent threat to Taiwan's media landscape in its quest for reunification. The PRC's malign influence in Taiwan's traditional media and ability to spread propaganda and disinformation on social media threatens Taiwan's press freedom and democratic process. Taiwan's government and civil society has responded to the PRC's threat in innovative ways. The United States has helped Taiwan fight PRC propaganda and disinformation through the GEC and should continue to do so by connecting Taiwan to companies and allies, increasing funding for Taiwan's efforts to fight disinformation, and advocating for its participation in international organizations. ∎

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Economic Warfare

China's Financial Alternative to Military Reunification with Taiwan

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CHINA-TAIWAN
REUNIFICATION
CONUNDRUM
SUBMISSION

The People's Republic of China has made no secret of its intention to annex the island of Taiwan by 2049. Numerous military war games and academic papers have repeatedly explored the military aspects of this annexation to use as templates for possible courses of action for China's campaign. However, while China's military might presents an obvious threat, Taiwan's economic vulnerability

to China poses a greater risk to its security than its military disadvantages. Although China possesses the military capabilities to defeat Taiwan, China's own cultural norms, its desire for international stability, and the possibility of its failure may hinder its primary course for reunification through military conflict. Instead, China will rely on economic disruption tactics to pressure Taiwan into acquiescing to its policy stances and reunifying with the mainland.

Using Economic Pressure

Rather than attempt a military campaign in Taiwan, China will attempt to first compel Taiwan capitulation by using economic strategies. China already possesses significant economic leverage over Taiwan; it could easily employ sanctions or market disruption, and the international community and Taiwan do not have the capabilities to defend the island against these actions.

Historically, Taiwan attempted to limit economic relations between the two countries in an effort to avoid economic overdependence on China. However, the opposite outcome occurred. In the span of a single generation, Taiwan's economy transformed from having almost no ties to mainland China to becoming incredibly dependent on Chinese trade and investment.[1] The desire to capitalize on China's economic rise and create similar economic improvements in Taiwan caused the economic relationship between China and Taiwan to become a matter of "asymmetric interdependence," which means that Taiwan depends more on China for a higher percentage and broader range of its economic activities than China depends on Taiwan.[2] As economic ties between the two countries

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continue to deepen, Beijing's sheer economic size might result in "overwhelming and irresistible leverage" over the island.[3]

Taiwan currently finds itself incredibly economically vulnerable to China. China is the leading recipient of Taiwanese exports and foreign direct investment (FDI). Exports to China account for one-tenth of Taiwan's gross national product, and FDI flows to China comprise more than half of all of Taiwan's FDI.[4] Hundreds of thousands of Taiwanese businesspeople also work on the mainland and commute between the two countries. Not only are the numbers of individuals working in China high, but the sectors to which the businesspeople belong are also strategically significant. Many of the Chinese-based workers belong to Taiwan's profitable information technology sector, as many of these companies have established factories within mainland China while keeping their main offices in Taiwan. These companies are both economically viable and politically influential, and many Taiwanese have expressed potential security concerns about their placement within China's borders.[5] Regardless of the location of these facilities, the difficult truth remains that without China's role in Taiwan's economy, the overall economic health of the island would degrade.[6]

Mainland sanctions. A clear method for China to exert economic pressure against Taiwan exists in leveraging export and import sanctions. Sanctions offer a low-cost, low-risk way to signal dissatisfaction; they would increase the cost to Taiwan for ignoring China's wishes, and they would prove difficult to respond to in retaliation. Sanctions can also create a sizable degree of economic damage, encouraging political unrest within a country and possibly catalyzing a change in the country's leadership.[7] Taiwan would suffer substantial economic disruption from a shutdown of Chinese imports from the island. A 2002 Deutsche Bank study concluded that given China's status as the leading importer of Taiwanese goods, if such a ban on imports occurred, "the impact on final demand in Taiwan could be worse than any of the previous regional or global recessions."[8]

Since 2002, Taiwan's dependence on China has only deepened. The number of imports to China has increased, and therefore, the potential economic repercussions of these sanctions have only worsened.

China would have great incentive to employ sanctions as a tool of economic manipulation; past studies on the

A woman walks past a screen 24 July 2020 that shows information and the index of the Taipei Stock Exchange. (Photo by Sam Yeh, Agence France-Presse)

effectiveness of sanctions indicate a likelihood of success given the economic relationship between the two countries. Historical case study analysis has demonstrated that sanctions are most successful when the economy of the "sender" country is at least ten times larger than that of the "target country."[9] In 2019, China's gross domestic product was at least twenty times that of Taiwan's.[10] Building on the gross domestic product comparison, sanctions are also effective when the sender country accounts for a third of the trade of the target country.[11] In 2018, China accounted for nearly a third of Taiwan's total trade.[12] These economic measures do not guarantee that Chinese sanctions would prove effective at changing Taiwanese policy, but they do provide significant comparisons to the conditions necessary in historical cases for sanctions to prove successful at causing political change.

Market disruption. The greatest threat to Taiwan's economy is not as blatant as issuing sanctions against the island. Chinese officials recognize they can target and disrupt Taiwanese economic markets, including its stock market and its foreign exchanges; doing so would not be a new strategy for China.[13] In 1996, China's missile tests caused Taiwan's stock market to plummet.[14] While that instance was accidental, Beijing learned the impact its actions could cause in the Taiwan's market. China has since intentionally repeated the effect. In 1995, when China used military exercises in the Taiwan Strait to respond to Taiwanese President Lee Teng-hui's trip to Cornell University, Taiwan's stock market fell almost 30 percent.[15] Four years later, when Lee issued political statements that China viewed unfavorably, the market fell 13 percent, with the loss equaling one-sixth of Taiwan's gross national product.[16] On several occasions since these incidents, Beijing has indulged its ability to spur large drops in Taiwan's stock and bond markets, and on occasion target specific industries or sectors that it felt challenged its national interests.[17] As Taiwan continues to globalize its economy more, opening its markets to foreign capital translates to a flood of Chinese capital and greater Chinese interference in the Taiwanese economy. This has resulted in an increase in China's capacity to suppress the Taiwanese market and erode investor confidence, which poses a significant threat to the country's stability.[18] While Taiwan could draw on its reserves to address disruption in the short term and in the midterm, it would

be unable to survive a prolonged effort to undermine investor confidence in its economy.[19]

Alternative methods. Other methods of Chinese economic disruption exist, such as harassing Taiwanese businesspeople as they travel between the two countries. China could also freeze or seize the assets of Taiwanese companies and investors in mainland China in an attempt to pressure those individuals to call for policy change in Taiwan.[20] However, the success of these methods largely relies on an assumption that the Taiwanese government would alter its stance on reunification for the sake of a number of individuals. Even if China targets influential businesspeople from Taiwan, it is unlikely that this will be substantial enough to prompt such a drastic policy shift.[21]

Outside of targeting the movement of individuals, China could also disrupt aspects of Taiwan's economic infrastructure, including its IT systems, communications platforms, and transportation. While China continues to invest heavily in its offensive cyber capabilities and could conduct these endeavors, its primary course of economic coercion would not include such attacks. Taiwan's own cyber capabilities mean that China's attacks would not go unchallenged, and the dependence of the Communist Party of China on continued economic stability means that Beijing is unlikely to jeopardize its own economic performance from cyber counterattacks.[22]

International Response

Economic actions would likely serve to isolate Taiwan internationally. Should China issue sanctions, manipulate Taiwanese markets, or undertake other forms of economic coercion, Taiwan would call upon the international community to come to its defense. However, determining a response to such a situation would prove to be difficult for other countries. Mustering a military response to economic aggression is a possibility, but it would seem a mismatch to an economic offense and would likely launch a prolonged military conflict with China. Similarly, other countries could implement their own sanctions against China, but they would do so at the risk of their own economies. If Taiwan should call for aid and no countries come to its assistance, or if other countries are unable to alleviate the economic situation, the island would find itself in a desperate position and would thus be more willing to negotiate with China to alleviate the economic strain.[23]

Bilateral trade
CHINA — US$139 billion — TAIWAN

Investment
CHINA — US$265.7 million / US$9,248 million — TAIWAN

Exports
CHINA — US$50 billion / US$89 billion — TAIWAN

Visitors
CHINA — 2.69 million / 5.9 million — TAIWAN

Total Taiwanese students in China (as of 2017)
11,000

Total Chinese spouses in Taiwan (as of Feb. 2018)
338,545

Total Taiwanese in China (as of 2016)
900,000
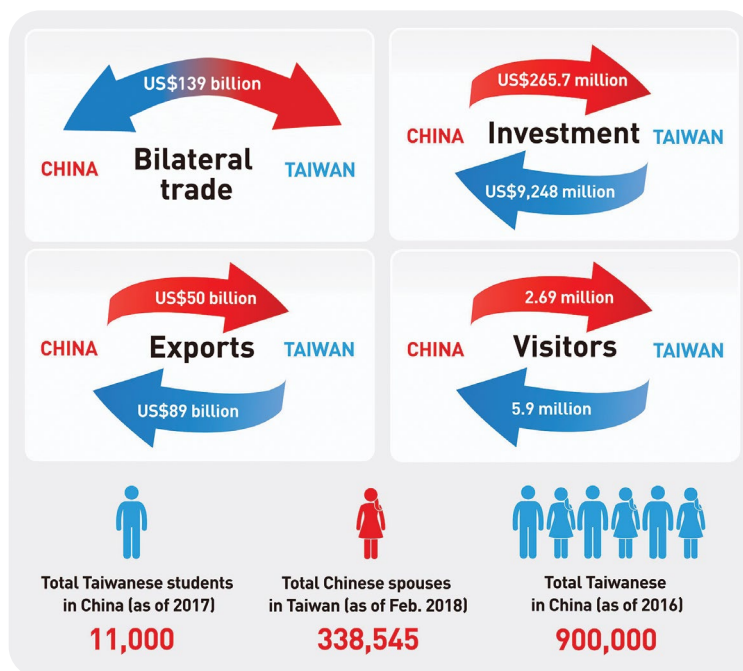
(Graphic from Focus Taiwan, Central News Agency English News, https://focustaiwan.tw/news/aipl/201804180022.aspx)

Statistical Overview of Taiwan-China Relations

Chinese Strategy

China's economic campaign against Taiwan is not a recent predicament. Rather, China has repeatedly demonstrated its desire to draw Taiwan closer to the mainland through economic ties and its ability to influence the Taiwanese economy. In 2010, China and Taiwan ratified their bilateral trade agreement, the Economic Cooperation Framework Agreement (ECFA).[24] Many individuals met the ECFA with skepticism and apprehension, with one analyst remarking, "The ECFA is not unification, far from it, but it steps in that direction economically."[25] The deal was economically and strategically significant for China. Not only did it further the ties between the two countries, but it also brought Taiwan to economic parity with other

Asian countries. At the same time, the deal did not elevate Taiwan's status so much so that Asian countries would seek their own trade agreements with Taiwan. In more blatant manipulation, in 2016, China's General Administration of Quality Supervision, Inspection, and Quarantine destroyed or returned 722 shipments of Taiwanese imports due to "political factors."[26]

for a prolonged period of time without capitulating. Should further measures prove necessary, China could accept the risk and engage in cyberattacks against the Taiwanese economic infrastructure. It could also seize the Taiwanese economic assets located in the Chinese mainland, looking to cause major losses of capital for Taiwan's most significant corporations.

> " If market manipulation proved insufficient, China could escalate to issuing sanctions against Taiwan, restricting the imports China receives from the island. "

Taiwanese companies operating in China have found themselves subject to random inspections and audits, with companies treated more favorably should they support China's political position.[27] From trade deals to business interference, these actions suggest that China has an ongoing continuous strategy already in place to slowly co-opt more of Taiwan through its economics.

Should China wish to pursue economic actions against Taiwan, it would occur as an escalation of force, similar to a military campaign. The larger country will continue its low-effort measures while its own economic growth increases, ensuring increasing economic leverage over Taiwan. As this occurs, Taiwan will naturally drift closer to China due to its asymmetrical economic relationship. If deepening economic ties prove insufficient on their own, China will likely escalate its tactics to manipulate Taiwanese markets by issuing statements that cause Taiwan's stock market to fall. It would seek to cause a long-term downturn so that Taiwan's reserves would prove ineffective to address any ongoing crisis. While this effort would prove to be China's main tactic, the country could also engage in smaller harassment operations, affecting the travel of Taiwanese businesspeople and increasing bureaucratic pressures on Taiwanese businesses located in mainland China.

If market manipulation proved insufficient, China could escalate to issuing sanctions against Taiwan, restricting the imports China receives from the island. Between the ongoing effects to the market and the sanctions against the country, Taiwan's economy would not have the resources available to survive

At each of these stages, economic action is not exclusive. Historical analyses of economic disruption cases have found that the measures are effective when accompanied by "powerful military companion measures."[28] China could easily conduct patrols through or flyovers above the Taiwan Strait to provide additional pressure. It could also employ diplomatic means, reinforcing Taiwan's exclusion from the World Health Organization, UN conferences, and Interpol. China also courts countries that continue to diplomatically recognize Taiwan, offering financial aid to tempt countries into ending diplomatic relations with Taiwan.[29] While economic pressures would remain China's main course of action to influence Taiwan's political choices, they would not be the only strategy the country has employed to further isolate Taiwan internationally and render it susceptible to Chinese manipulations.

Taiwanese Resistance

China does not go unchallenged in this ongoing economic battle. Taiwan is not blindly walking into China's arms; the island is fully aware of China's ability for economic leverage and has sought to counter China's efforts. Taiwan possesses significant quantities of foreign exchange reserves and places strict controls on daily movements of its stock market to provide short-term financial stability. However, to resist Chinese efforts over the long term, Taiwan needs to obtain other sources of foreign investment, which has proven difficult.[30] In January 2017, Taiwan launched a "New Southbound Policy" to divert the island's exports to south and

Pro-Taiwan independence activists call for a referendum on a formal declaration of autonomy in front of the headquarters of the ruling Democratic Progressive Party 20 October 2018 during a demonstration in Taipei. Thousands of Taiwan independence campaigners took to the streets for a major rally that was a rebuke to Beijing and a challenge to the island's already embattled government. (Photo by Sam Yeh, Agence France-Presse)

Southeast Asia rather than China, but Chinese pressure on southeast Asian countries to limit interactions with Taiwan challenges the future success of the initiative.[31] To diversify its economy, Taiwan could also consider joining one of the large regional trade agreements arising in the Pacific, namely the China-led Regional Economic Partnership or the Japanese-led Comprehensive and Progressive Agreement for Trans-Pacific Partnership. However, signing on to Regional Economic Partnership would require Taiwan to join as a province of China, which would not assist its effort to distance itself from the mainland. The other option available is the Comprehensive and Progressive Agreement for Trans-Pacific Partnership, which is the successor to the U.S.-led Trans-Pacific Partnership. However, this trade agreement has yielded mixed results to its signatories, with some countries experiencing a significant increase in their trade flows and others seeing no change. With such a mixed record, signing on to this latter trade agreement would not guarantee Taiwan the diversity it needs in its economy to neutralize Chinese interference. The last option for Taiwan would be to enter into bilateral free trade agreements with other countries. Unfortunately,

given Taiwan's controversial political status, most countries would avoid a bilateral deal to avoid antagonizing China and jeopardizing their relationship. Even if Taiwan successfully negotiated bilateral free trade agreements, the relationships would simply provide it parity with other countries in the region.[32] For Taiwan to become a competitor in the regional economy, it must develop its economic competitiveness. Unfortunately, Taiwan's strategy for improving its national competitiveness largely involves investments in its industrial sector in which it has agreed to "joint industrial cooperation" with China. Therefore, despite its efforts and desires otherwise, for Taiwan to maintain and improve its economic standing, it currently must rely on a close economic relationship with China.[33]

Military Overmatch

If China avoids a military conflict with Taiwan, it will not be because China is unprepared for battle. China has armed itself both with legal arguments for aggression and military capabilities for a campaign into Taiwan. To build its legal framework, China outlined in its 2005 Anti-Secession Law that should any secessionist forces seek independence, the People's Republic of China would "employ non-peaceful means" to protect its national sovereignty.[34] Reiterating this provision in 2019, President Xi Jinping extended this guarantee to allow the use of force to prevent "intervention by external forces" into Taiwan.[35] China views any attempt to attain independence as illegal, whether Taiwan attempts independence alone or with the assistance of a third party, and China's leaders periodically issue hawkish statements reminding the island of that fact.

More worrisome than the political language surrounding the Taiwan issue is the Chinese military development and investment that has occurred with the intention of arming the country in a future campaign against the island. Since the 1996 Taiwan Strait Crisis, China has placed significant weight behind reforming and modernizing its military. These efforts escalated further in 2012 when Xi championed creating a modern force in China that could lead its regional neighbors.[36] China is now second only to the United States in annual defense spending.[37] While not all of its military improvements are specifically for a future crisis with Taiwan, developments in the navy and air force suggest that China is looking to secure the transportation routes between it and Taiwan should it need to seize the country. China's navy has ballooned to become the world's largest naval force in total ship numbers. As of 2017, more than 70 percent of the fleet was new, compared to less than 50 percent in 2010.[38] The country has commissioned more nuclear submarines and looks to expand its operations from the near seas to greater distances from the mainland. China's air force has grown as well. In addition to increasing its size, the People's Liberation Army Air Force has copied many American designs to build advanced versions of stealth aircraft, unmanned aerial vehicles, airborne warning and control systems, and bombers.[39] China has also worked to develop its rocket force. Relative to the Taiwan issue, China has developed antiship ballistic missiles to target vessels in the Western Pacific, supporting its anti-access/area denial strategy.[40] Regardless of the ultimate strategy it pursues, China is preparing for the military contingency of seizing Taiwan.

Rejecting Military Means

Even with its hawkish statements and military reforms, China will seek to avoid military reunification with Taiwan. A forced reunification conflicts with Chinese cultural norms, would disrupt the international order, and provides no guarantee of a Chinese victory.

Cultural norms. Despite its military growth, China's history has led to the rise of norms and traditions that incline to avoid outright military conflict. Since the Han dynasty (206 BCE–220 CE), Confucian ideas and values have informed Chinese interpersonal relationships, societal structures, individual behaviors, and work ethics.[41] Confucianism emphasized virtuous behaviors, and its Five Constant Virtues include humanity, righteousness, propriety, wisdom, and faithfulness.[42] With such deep roots in Chinese society, Confucianism also invariably influences the country's military strategic thought and international relations. Key within Confucianism is the preference for harmony over conflict and defense tactics over offensive ones.[43] These teachings became evident in Confucian idioms throughout Chinese history: "display virtue and do not flaunt the military instrument" and "emphasize civility, deemphasize martiality; stress virtue and downplay physical strength."[44]

Chinese military scholars have also traced this influence to the writings of Sun Tzu, who advocated subduing the enemy without resorting to violent means.[45] Avid Chinese historians note the prevalence of walls and earthworks throughout the country's history, rather than vast expansions of its borders. These barriers are the manifestation of the need for self-protection and the use of defensive, rather than offensive, force.[46] While it began centuries ago, this Confucian influence is also prevalent in more recent observations on Chinese leaders. In his lauded work *On China*, Henry Kissinger noted the following:

> Rarely did the Chinese statesmen risk the outcome of a conflict on a single all-or-nothing clash: elaborate multi-year maneuvers were closer to their style. Where Western tradition prized the decisive clash of forces emphasizing feats of heroism, the Chinese ideal stressed

subtlety, indirection, and the patient accumulation of relative disadvantage.[47]

Confucian culture and traditions guided the Chinese statesmen with whom Kissinger interacted, and their avoidance of decisive acts of aggression stem from centuries of Chinese history that have created such a strategic culture.

Confucian influence does not completely remove the potential for war. However, to commit to military action, the use of force must be "unavoidable."[48] According to Confucianism, "war should be taken only as a last resort, and only in a just cause. This generally means defensive war, but can also mean punitive war to stop the strong from bullying the weak."[49]

Chinese military history scholars have classified its recent military actions as righteous endeavors, particularly in the Korean War, the Sino-Indian war, and the Sino-Vietnamese War. In each of these cases, Chinese leaders defined their military involvement as just and strategically defensive to their core interests and national security.[50] Each war is a limited affair, with clearly defined political goals and often spatial or temporal restrictions.[51] In this way, Chinese leadership have defined their military actions as righteous and defensive acts consistent with Confucian ideals.[52]

Aware of how its development could appear threatening and contradictory to many of its Confucian values, Beijing has repeatedly committed itself to reiterating its peaceful intentions.[53] Col. Kenneth Johnson noted in a previous study on Chinese strategic culture that the country's leaders have established the following principles governing their behavior in the world order:

(1) the "five principles of peaceful coexistence," which include mutual respect for each other's territorial integrity and sovereignty, mutual nonaggression, mutual noninterference in each other's internal affairs, equality and mutual benefit, and peaceful co-existence;

(2) establishing a fair and reasonable political and economic world order;

(3) no use of force or threat of the use of force in international relations;

(4) all nations, big or small, strong or weak, rich or poor, are equal in international affairs; and

(5) China should always side with developing countries, and it should never seek hegemony or superpower status.[54]

In many of the defense white papers the country has published, it hedges its security developments by reemphasizing its commitment to avoid hegemony and military expansion.[55] These principles have also manifested in more recent discussions on China's desire for a peaceful solution with Taiwan. In the country's 2019 defense white paper, its leaders emphasized peace:

China adheres to the principles of "peaceful reunification," and "one country, two systems," promotes peaceful development of cross-Strait relations, and advances peaceful reunification of the country.[56]

While the white paper discusses the catalyst for any military involvement, it takes care to stress the desire for peace first and to abundantly use peaceful language in the writing.[57] For China, military reunification remains the ultimate last resort, rather than its preferred strategy.

Challenge international stability. Military action against Taiwan would unquestionably disrupt the international order. Even though other countries typically cast China as a disruptive force, it has largely upheld international rules, laws, and norms. China has increased its funding to the United Nations and regularly contributes to peacekeeping operations. While it has pushed for reforms in these organizations, China largely abides by the frameworks of the International Monetary Fund, World Trade Organization, and G-20.[58] Taking military action against Taiwan would prove internationally politically unpopular and would jeopardize China's standing in all of these institutions.

China's leaders have also blatantly stressed their devotion to a stable world order. In his 2015 speech to the United Nations General Assembly, Xi noted that "[w]e cannot realize the Chinese dream without a peaceful international environment, a stable international order, and the understanding, support, and help from the rest of the world."[59] Adding to this statement, Xi remarked at the 2017 19th Party Congress in Beijing that China would "continue its efforts to safeguard world peace, contribute to global development, and uphold international order."[60] These two speeches stress the Chinese desire for continued stability and counterbalance the bellicose statements quoted earlier regarding military intervention.

While Taiwan is a "bottom line" for China, the latter country must ultimately maintain its international standing. In China's 2013 defense white paper, Xi noted how it is necessary to both "safeguard stability and safeguard rights."[61] This remark was the first time that the country's rights and interests received the same level of prioritization as the traditional directive to uphold stability.[62] However, this new emphasis merely places the matters on more equal standing, which indicates that the country

it must confront the possibility of failure in a military campaign into Taiwan. Even with its recent and ongoing military improvements, there is no guarantee of a Chinese victory against Taiwan. China holds no illusions about the state of its military and notes its own need to continue modernization and restructuring. The country acknowledges in its own 2019 defense white paper that "the People's Liberation Army (PLA) still lags far behind the world's leading militaries."[64] It struggles

A one Yuan banknote was issued by the Federal Reserve Bank of China, a Japanese puppet government bank that printed paper money during the years 1938–1945. A portrait of Confucius is featured with an image of the Temple of Confucius, which is located in Shandong Province. Confucius, who lived from 551 BCE to 479 BCE, was one of China's most important and enduring philosophers. His teachings have shaped the moral foundation of Chinese society and government for more than two thousand years and continue to deeply influence Chinese society, despite occasional official efforts to stamp out his influence. (Image courtesy of PrimalTek, http://primaltrek.com/chinesepapermoney.html)

may tolerate more risk for the sake of pursuing what it asserts is its rights. The primacy given to safeguarding stability and the fact that Xi did not elevate safeguarding rights higher than maintaining stability both reinforce that Chinese leadership will not pursue the Taiwan issue to the extent that it would challenge the international stability China requires for continued economic growth.[63] Therefore, no matter the importance that Taiwan may hold for China, Beijing ultimately favors a stable international order over military action.

Possibility of failure. If China minimizes its cultural norms and desire for international stability, then

to recruit and train a sufficient number of personnel to man its ranks, and China's limited involvement in ongoing conflicts means that the majority of its service members lack combat experience. The country itself has not mobilized for war since a brief altercation in the late 1980s, and many of the processes to mobilize remain undeveloped and untested.[65] While the Chinese military may possess an advantage in technology and equipment, it does not have the dominance over Taiwan as its size and capabilities would otherwise suggest.

The potential for the United States to involve itself in supporting Taiwan further complicates the

outcome of a future Taiwan campaign. China has no guarantee that the United States will not send its own manpower and equipment to aid Taiwan in its struggle. Even the possibility that the United States could participate remains a significant deterrent for China. While China has improved its own military relative to other Asian powers, it does not have the strength necessary to defeat the United States. Continued Chinese military improvements, particularly in anti-access capabilities, do improve its standing relative to the United States, but any gains against the Americans in Taiwan would prove costly. At best, China would experience a pyrrhic victory against the United States-seizing and occupying the island but suffering heavy casualties in the process. At worst, China would find its military power degraded in the fight against the United States and lose both the campaign and its international standing.[66]

A Different Outcome

This article is predicated upon the assumption that the overall status quo of the China-Taiwan relationship will remain. Should Taiwan undertake a drastic independence push or should another country push for independence on its behalf, Xi has already clearly stated China will make a military response. In the country's 2019 defense white paper, China remarked it "will never allow the secession of any part of its territory by anyone, any organization or any political party by any means at any time."[67] This chain of "any's" is stronger language than the country used in previous defense papers. Xi reaffirmed this commitment by stating that China would "resolutely defeat anyone attempting to separate Taiwan from China."[68] Therefore,

should Taiwan continue as it has with political language supporting separation but no clear military efforts, China will seek a longer and subtler economic approach to reunification. However, if the island nation pursues military action or should an outside party conduct military effort on its behalf, China will forsake its economic strategy to and employ its military capabilities to annex Taiwan.

Similarly, Beijing would likely abandon an economic strategy should its economic leverage over Taiwan diminish or its 2049 goal approach with no headway. Currently, Beijing has the ability to conduct the "elaborate multi-year maneuvers" Kissinger noted as its specialty. However, if 2049 nears and Taiwan is no closer to unification through economic means, China can be expected to reevaluate its strategy and consider a final military solution.

Conclusion

While China certainly has the current capability to conduct a military expedition against Taiwan, cultural norms that avoid conflict where possible, desire for international stability, and lack of a guaranteed military success all render a forceful annexation unlikely. Instead, Beijing can be expected to use its economic leverage over Taiwan to disrupt markets and implement sanctions in an effort to compel the island to acquiesce for the sake of its economic survival. Therefore, as China watchers continue to monitor the country for signs of any threat to Taiwan's sovereignty, they must remain aware of the likelihood that the main initial attack will not come from the sea or air but rather through indirect financial means. ■

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Taiwan and the U.S. Army

New Opportunities amid Increasing Threats

Eric Setzekorn, PhD

CHINA-TAIWAN REUNIFICATION CONUNDRUM
SUBMISSION

For the first time in decades, the evolving security situation in the Taiwan Strait offers the U.S. Army a chance to play an important role in deterring Chinese military action and strengthening American strategic connections in East Asia. In the western Pacific, the U.S. Army has been traditionally focused on the Korean Peninsula, but a shifting political context, technological developments, and new policies are expanding the U.S. Army's opportunity to play a larger part in maintaining stability in the region.

A Starker Strategic Context

Over the past five years, the strategic consensus that engagement between the United States and the People's Republic of China (PRC) would provide long-term benefits and possibly political changes in the PRC has been abandoned by both the Republican and Democratic parties. Opposition to Chinese predatory economic practices, aggressive territorial actions in East Asia, and Communist Party of China General Secretary Xi Jinping's domestic political crackdown has led to a backlash throughout the U.S. foreign policy community. Then

Secretary of Defense James Mattis released the *2018 National Defense Strategy*, identifying China as a "strategic competitor using predatory economics to intimidate its neighbors while militarizing features in the South China Sea."[1] Alongside increasing concerns about the PRC, connections between the United States and Taiwan have been steadily expanding. Since the passage of the Taiwan Relations Act in 1979, the United States has been committed to preserving close economic and cultural ties with Taiwan, as well as providing defensive military equipment.[2] Although in accordance with the "One China Policy," the U.S. formally recognizes only the People's Republic of China, rather than the Republic of China (Taiwan), U.S.-Taiwan government relations have been increasing in the past several years. The Obama administration supported Taiwan's inclusion in several international organizations, such as the International Civil Aviation Organization.[3] On 31 December 2018, President Donald Trump signed the Asia Reassurance Initiative Act, passed by Congress with unanimous consent, which increases support to Asian allies and specifically called for expanded contact with Taiwan through expanded defense sales and high-level visits.[4] In November 2019, Heino Klinck, U.S. deputy assistant secretary of defense for East Asia, visited Taiwan; the visit was the highest level American military engagement in a decade.[5] The year 2019 also marked the fortieth anniversary of the Taiwan Relations Act, which was commemorated by numerous ceremonies, exhibitions, and speeches in Taipei and Washington.[6]

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At a New Year's Day flag-raising ceremony held 2 January 2016 in Washington, D.C., Taiwan representative Shen Luxun speaks to a crowd supportive of Taiwan's independence, emphasizing the importance of Taiwan's flag as a national emblem of the Republic of China. (Photo by Zhong Chenfang, Voice of America)

In 2020, the United States (together with Japan), also began an effort to increase Taiwan's role in the World Health Organization, after Taiwan's deft handling of the COVID-19 pandemic drew international praise.[7]

The past twenty years has seen an increasingly stark disconnect between Taiwan and China, as a distinctive Taiwanese identity has flourished, while the PRC's intensely nationalistic posturing has further separated the two distinct societies and cultures. The relationship between Taiwan and China has posed a political challenge since 1949, when Mao Tse-tung's communist People's Liberation Army (PLA) forces defeated the Republic of China's (ROC) military and forced Chiang Kai-shek's government to flee to Taiwan. Over 80 percent of the modern-day Taiwanese population has

no direct familial connection to China, their ancestors having emigrated to Taiwan hundreds or even thousands of years earlier. During the Cold War, the ROC government that had fled to Taiwan in 1949 promoted an official historical narrative of a shared "Chinese" culture on both sides of the Taiwan Strait. Historians and political scientists have increasingly highlighted the shallow roots of this cultural project, with recent scholarship illustrating that Cold War propaganda to "retake the mainland" was a political slogan that was not indicative of larger cultural or social affinities between China and Taiwan.[8] Since Taiwan's democratization in the 1980s and 1990s, the majority of the population has been skeptical of political and social connections to the PRC, and since the year 2000, Taiwan's Democratic
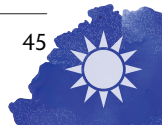
Progressive Party, which is wary of China, has won four out of six ROC presidential elections. Moreover, Taiwanese voters have shown increasingly negative opinions of China during Xi's rule, and the voters do not desire any political relationship. In 2020, over 83 percent of the voters identified as Taiwanese, compared to the 5 percent who self-identified as Chinese.[9] A strong identification with Taiwan, and a negative opinion of China, is especially apparent among younger demographic cohorts, who see China as belligerent and repressive, especially in light of the recent Hong Kong protests.[10] Taiwan's free press, its openness to immigration, and its changing social views (such as the legalization of same-sex marriage) also deepens the psychological divide. In effect, Taiwan's society and culture has evolved away from any real possibility of a sustained political relationship with China.

In addition to a deep cultural and political divide, Taiwan's economic relationship with China has also been wavering in the past five years. Since China began allowing Taiwanese investment in 1988, China has become Taiwan's largest trading partner, accounting for roughly 23 percent of Taiwanese exports in 2018, although this percentage is falling.[11] The signing of a tariff lowering Economic Cooperation Framework Agreement between China and Taiwan in 2010 set off massive protests in Taiwan, where many were worried that dependence on the Chinese market would allow for economic coercion and undermine Taiwan's sovereignty. While trade did increase after the Economic Cooperation Framework Agreement was signed, in the past four years Taiwan's economic investment in China had been declining, and Chinese investment growth in Taiwan has slowed sharply. Taiwan is also seeking to diversify its economic connections, and has negotiated free trade agreements with Singapore, New Zealand, and Panama.[12] The U.S.-China trade dispute has also created an opportunity for Taiwan, with Taiwan's economy growing at a rate of 3.4 percent in the fourth quarter of 2019, as U.S. companies sought to diversify their supply chains and move away from a reliance on China.[13] The U.S.-China trade dispute also appears to have boosted U.S.-Taiwan connections, especially in hi-tech industries, with a May 2020 announcement of a massive $12 billion investment by a Taiwanese company in a semi-conductor facility in Arizona, as well as the establishment of a Google research cluster in Taiwan.[14]

On the other side of the Taiwan Strait, the contrast to Taiwan's increasingly democratic, postmodern society is stark, as Xi continues to consolidate power and assert Chinese strength on the world stage. Since becoming General Secretary of the Communist Party of China in 2012, Xi has authorized the construction of artificial islands as a means of pursuing aggressive policies in the South China Sea; widespread cyberattacks and massive espionage activities directed toward the United States; and extensive military posturing toward neighboring countries such as Japan.[15] At home, Xi has greatly expanded the powers of security agencies, turned the vast western region of Xinjiang into a laboratory of Orwellian surveillance, and conducted widespread detentions of the Uyghur people. Xi has been similarly direct with Taiwan by personally establishing hard-line policies, underscoring that China will take the necessary actions to preserve its territorial claims. In a January 2019 speech regarding Taiwan, Xi stated, "We make no promise to renounce the use of force and reserve the option of taking all necessary means."[16] Xi's views have further limited the possibilities for a political and diplomatic solution to the cross-straits dispute, and the PRC's frequent saber rattling through military exercises and fielding advanced weapons has made the balance of military power in the Taiwan Strait increasingly fragile.

The Shifting Conventional Military Balance

While the political and cultural divide between Taiwan and China has widened, the balance of military power has shifted, not just between Taiwan and China but also between China and the United States. Since 1949, Taiwan has maintained a large military for a country with a population of twenty-three million people, using conscription and extensive purchases of U.S. equipment to create a very effective deterrent force. However, the growing capacity of the PLA to use air, naval, and missile forces to threaten Taiwan and which calls into question the forward basing of U.S. forces in East Asia

Next page: The 1st Battalion, 142nd Field Artillery Regiment team fires an Army Tactical Missile System 10 July 2015 at White Sands Missile Range, New Mexico. (Photo by Sgt. Katie Grandori, Arkansas National Guard Public Affairs Office)

has now forced a fundamental redesign of Taiwan's defense policy, and U.S. planners are also searching for new operational models to project power.

China's extensive military force modernization program is designed to provide the PLA with the ability to fight "informatized wars under local conditions," which means short, high-tech conflicts in China's periphery and a long-term goal of "world-class" military power in twenty to twenty-five years.[17] The PLA naval force is already larger than the U.S. Navy in total number of ships, and multiple aircraft carrier groups are under construction.[18] Chinese investment in large shipyard building capacity means that naval vessels can be built rapidly; for example, forty-one Jiangdao-class (type 056) corvettes were built between 2013 and early 2019, and the building boom shows no signs of ending.[19] PLA ground forces continue to reduce personnel strength, while increasing

formations.[20] In 2015, the PLA command structure was also refined to create five theater-level commands, allowing for streamlined joint operations.[21] The PRC has become a world leader in hypersonic missiles and the DF-17 ballistic missile, which has a range of 1,500 miles and a speed of Mach 5, is expected to reach initial operating capability in 2020.[22] The impact of the Chinese massive spending and growing offensive capability has inspired doubt in the U.S. Navy's ability to provide security in the western Pacific region.

Taiwan's military has not been passive in the face of rising Chinese military threats and has continued to modernize its forces and adapt defense policies to the changing threats. Taiwan's ground forces have undergone major changes, with many of the older M41 and M48 tanks put into storage while newer, more mobile systems have been introduced. An

eight-wheeled armored vehicle, the CM-32 "Cloud Leopard," which functions much like the U.S. Army Stryker, has been domestically produced and has multiple configurations including mortar carrier, infantry squad, and command models. To upgrade the survivability and firepower of its armored forces, in 2019, Taiwan purchased over one hundred M1A2 Abrams tanks from the United States.[23] Since 2006, Taiwan has worked to create three combat aviation brigades modeled after U.S. formations and purchased sixty UH-60M Blackhawk medium-lift utility helicopters and thirty AH-64D Apache Longbow attack helicopters to join its existing fleet of CH-47 Chinook heavy-lift and UH-1 Huey medium-lift helicopters.[24] Taiwan has invested heavily in U.S. Army missile systems, spending billions on Patriot missiles and Army Tactical Missile System for its M270 rocket launch vehicles.[25] Taiwan's F-16 fighter aircraft force is set to receive a major upgrade of its existing F-16A/B fleet to the F-16V configuration; it will also add sixty-six more new F-16 aircraft, an effort costing over $5 billion.[26] The effect of these military acquisitions and improved capabilities maintains a tenuous balance in the region and preserves a credible deterrence presence in Taiwan.

In contrast to the intensive reform and procurement programs in Taiwan and China, the U.S. Army has not developed or deployed any new equipment or programs of significance in the past fifteen years that directly address the challenges in the western Pacific. This neglect was largely caused by the focus on counterinsurgency operations during the post-9/11 period as well as budget reductions due to sequestration. The Army Futures Command (AFC), created in 2018, was a positive development for the U.S. Army. AFC bears responsibility for a number of efforts that could have a tremendous impact in deterring PRC actions, such as boosting long-range firepower and developing next-generation Army weapons. AFC also examines supporting elements, such as "assured position, navigation and timing" to protect against enemy interference with electronics and a "synthetic training environment," to provide new training options.[27] One bright spot in the near future is the development of the precision strike missile, which can hit ground and naval targets at a range of up to four hundred kilometers and can be mounted in existing U.S. Army High Mobility Artillery Rocket System or Multiple Launch Rocket System launchers, both of which Taiwan also operates.[28] The U.S. Army's recent developments are promising, and Taiwan offers an intriguing location for mutually beneficial coordination because of shared Chinese threats to cyber systems, tactical networks, and the need for long-range precision fires.

New Strategies and Policy Options in East Asia

Although the military balance of power in the western Pacific is currently sufficient to promote stability and maintain peace, Taiwan and the United States will both increasingly need the robust, layered defense that ground forces provide in order to deter PRC military action. The U.S. Army could play a vital role in assisting with the development of new defense strategies in East Asia that could deter PRC aggression even if Taiwanese and U.S. naval and air forces were unable to defeat PRC attacks offshore. The defense situation in East Asia is fluid, and the PRC has continued reforms to its ground forces to emphasize the ability to seize and control disputed land territory and prevent a layered defensive force from challenging PLA operations. This evolving situation presents the U.S. Army with an opportunity to provide support and assistance, as well as refine old techniques for the twenty-first century multi-domain environment.

In the past five years, new ROC defense plans have sought to strengthen land-based defenses and present China with the challenge of overcoming robust and

Top: Taiwan pro-independence supporters display a banner before a Democratic Progressive Party gathering 16 January 2016 in Taipei. Taiwan elected its first female president in the historic vote, ending eight years of closer ties with China. (Photo by Philippe Lopez, Agence France-Presse)

Bottom: Taiwan's President Tsai Ing-wen (*center*) meets Maj. Gen. Arthur J. Logan, commander of the Hawaii National Guard, 28 March 2019 during a tour of the Hawaii Emergency Management Agency (Hi-EMA) and the Hawaii National Guard's disaster prevention center in Honolulu. (Photo courtesy of the Office of the President of the Republic of China [Taiwan])

Like those Taiwan purchased from the United States, two M1 Abrams main battle tanks with 1st Armored Brigade Combat Team, 1st Infantry Division, search for optimal defensive positions 19 August 2019 during the culminating force-on-force exercise of Combined Resolve XII at the Joint Multinational Readiness Center in Hohenfels, Germany. (Photo by Sgt. Thomas Mort, U.S. Army)

decentralized ground defenses. This strategy, known as the "Overall Defense Concept," seeks to provide low-cost asymmetric capabilities. For example, in addition to conducting an immediate counterattack on PRC forces at a beach landing site using M1A2 tanks and AH-64 attack helicopters, ground units will prepare a layered defense that will not only inflict high casualties but will also provide time for reinforcements to mobilize from reserves or arrive from overseas.[29] Taiwan has begun developing an indigenous High Mobility Artillery Rocket System, which can deploy rapidly and is small enough to maneuver through Taiwan's dense urban environments or mountainous terrain. Taiwan is also purchasing hundreds of Stinger antiaircraft missiles, as well as over 1,400 Javelin and tube-launched, optically tracked, wire-guided (TOW) antitank missiles to add to the thousands of short-range, portable missiles it already has on hand.[30] In addition, Taiwan has developed an indigenous shoulder-fired disposable antitank missile and has begun distributing hundreds of the systems to locations throughout the country.[31]

The Overall Defense Concept is also pushing Taiwan to reshape its large number of reserve forces into a more operational and capable element of a layered defense. During the Cold War and into the 2010s, Taiwan required eight years of military service in the reserves after the period of mandatory conscription, and the overall pool of reserve manpower was over 3.5 million, with 2.5 million having army experience.[32] Taiwanese men are now conscripted for only four months of military training rather than a prolonged period of military service.[33] Taiwan's reserve system has never been fully activated in a crisis, and most reservists complete four "refresher" weekend exercises that include rifle marksmanship

training, limited combat training, and learning basic disaster relief skills.[34] Although changes to Taiwan's reserve forces are needed to make it more capable and responsive, this force represents an enormous military resource with significant deterrence potential. Due to the PLA downsizing and streamlining into a force of roughly 1.3 million ground force personnel, not all of whom can be deployed, Taiwan

providing combat support roles similar to military police in the U.S. Army. The PAP has been systematically reformed from a dumping ground for passed-over officers and retired soldiers into a highly trained and well-equipped reaction force that can deploy to disputed areas. Changes in the PRC command structure have also more closely linked the PAP to military affairs. On 1 January 2018, the PAP was moved under the control

> The U.S. Army could play a vital role in assisting with the development of new defense strategies in East Asia that could deter People's Republic of China (PRC) aggression even if Taiwanese and U.S. naval and air forces were unable to defeat PRC attacks offshore.

has a significant advantage in sheer numbers if it can create a more active, capable reserve element. The U.S. Army can serve as a useful partner in the effort to strengthen Taiwan's reserve capacity because the United States has developed a complex Army Reserve and National Guard system that supports operational rotational assignments as well as domestic disaster relief functions. Even creating a small operational reserve of roughly one hundred thousand personnel could provide additional brigades and support units during a crisis by reinforcing defenses and augmenting the active duty force.[35] Taiwan's policy makers have already been seeking U.S. Army assistance in creating a more robust and flexible ground component. During President Tsai Ing-wen's 2019 stopover in Hawaii, she visited the Hawaii Army National Guard Emergency Management Agency to understand how the U.S. National Guard units coordinate with other local and federal agencies.[36]

The shift toward a layered defense and asymmetric responses has not gone unnoticed in China, which has also been reforming its military forces to provide a larger manpower pool for expeditionary operations and new specialization in combat support roles. During the past five years, the People's Armed Police (*wuzhuang jingcha budui*, or PAP), a paramilitary force that serves as an adjunct to the PLA, has undergone a radical transformation. The PAP augments PLA ground forces,

of the Central Military Commission and the Central Committee of the Chinese Communist Party, both of which are headed by Xi.[37] In order to focus on combat roles, this organizational shift saw the PAP shed many civilian roles such as border protection and safeguarding natural resources. PAP forces have been structured into two "mobile contingents," each commanded by a two-star general officer.[38] These new formations have been equipped with heavier and more advanced weaponry, armored vehicles, helicopters, and unmanned aerial vehicle capabilities. PAP detachments have also been shifting from a stationary duty location to an expeditionary model; PAP units spend a year or two in Tibet or Xinjiang, which are regions with significant animosity to the PRC government, before rotating into a training and recovery phase. In total, these reforms of the PAP have made it a valuable resource of tactics and manpower that can support PLA efforts to defeat a layered defense approach to ground conflict in Taiwan.

Outlook for the Future and the U.S. Army's Role

In this dynamic environment between the PRC and ROC, the U.S. Army has an opportunity to become more involved and play a vital role in several ways. Unfortunately, the U.S. Army has not been proactive and is not a leading voice in the Washington policy discussion on Taiwan or the PRC. For example,

in the 2018 National Defense Authorization Act, Congress identified several tasks related to engagement, including Taiwan's participation in "Red Flag" U.S. Air Force exercises and for the U.S. Navy to "conduct bilateral naval exercises, to include pre-sail conferences, in the western Pacific Ocean with the Taiwan navy."[39] No mention was made of a U.S. Army role, which is not surprising due to the lack of U.S. Army messaging in Washington detailing what the service can provide. U.S. Air Force and Navy officers and senior leaders, both active duty and retired, are frequent speakers at Washington think tanks and research centers. In contrast, positions within the Department of Defense that coordinate East Asia policy in general, and PRC or Taiwan policy in particular, are rarely staffed by Army officers.

If the U.S. Army can become more active within Washington, D.C., where U.S. budgets are created and policy debates occur, there are two vital areas with excellent possibilities for future security development in the Taiwan area. First, the Army appears to be making great progress in developing long-range precision fires, and the Taiwan environment would be an excellent area to work through operationalizing the technology and developing new procedures. Second, the U.S. Army has made tremendous improvements in how it has trained and used reserve forces in the past two decades, and there are lessons that can help Taiwan as it attempts to "operationalize" its reserve component. By playing a more proactive role in policy debates, continuing to focus on relevant technologies, and sharing organizational lessons, the U.S. Army can impact an important and potentially dangerous flashpoint in the world today. ∎

The views presented in this article represent the author's personal opinions and are not those of his employer.

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Deterring the Dragon

Returning U.S. Forces to Taiwan

Capt. Walker D. Mills, U.S. Marine Corps

CHINA-TAIWAN
REUNIFICATION
CONUNDRUM
SUBMISSION

During the Cold War, the primary objective of the U.S. military's conventional deterrence was to prevent a Soviet invasion of Western Europe and most of the literature on conventional deterrence focused on Europe. Since then, the collapse of the Soviet Union and the expansion of the NATO alliance to include many post-Soviet states have dramatically lowered the threat of a conventional invasion of Western Europe. While there remains a risk of fait accompli actions and other malign behavior, the overall risk does not compare with the risk of invasion during the height of the Cold War. Meanwhile, the United States has "pivoted" to Asia and is primarily concerned with an aggressive and "revisionist" People's Republic of China, also called mainland China.[1] China has made it clear that it views the Republic of China (hereinafter referred as Taiwan) as its most important "core interest" and that it would use force to prevent full Taiwanese independence. Chinese leadership has also made clear that they intend to reunify Taiwan with mainland China by 2049.[2] Parallel to increasingly assertive rhetoric from Chinese leadership, the People's Liberation Army (PLA) has undergone a dramatic modernization and is rapidly approaching parity with U.S. forces in some areas and has surpassed U.S. forces in others like intermediate range missiles.[3] Current trends including the increasingly assertive Chinese

claims over Taiwan, an increasingly potent and aggressive Chinese military, and the U.S. pivot to Asia have set the stage for escalation and potential confrontation over Taiwanese sovereignty. The United States needs to recognize that its conventional deterrence against PLA action to reunify Taiwan may not continue to hold without a change in force posture. Deterrence should always be prioritized over open conflict between peer or near-peer states because of the exorbitant cost of a war between them. If the United States wants to maintain credible conventional deterrence against a PLA attack on Taiwan, it needs to consider basing troops in Taiwan.

Assessing Intentions

Assessing the intentions or redlines of foreign governments is particularly difficult, and the United States has an imperfect track record with China after major miscalculations regarding Chinese intervention in the Korean War. However, Chinese leadership has made their intention to reunify Taiwan and China by force, if necessary, unequivocally clear. They have never wavered from their "One China" policy and have been calling for PLA invasion of Taiwan since 1949.[4] Since at least 1993, the PLA has held up a potential cross-strait operation as their number one strategic priority.[5] Some analysts like Toshi Yoshihara and James R. Holmes argue in the book *Red Star over the Pacific* that Taiwan is even more valuable to China than many Western analysts recognize in the minds of mainland leadership.

[The Taiwan Issue] involves far more than sovereignty and national dignity, the motives Westerners commonly impute to
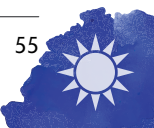
China. Taiwan's return to mainland rule would buttress China's strategic position, broaden access to resources and trade, and brighten the prospects for restoring China's rightful standing in Asia.[6]

Ian Easton, a senior researcher at a China-focused think tank, has emphasized this as well, writing:

> Invading Taiwan is at the heart of the armed wing of the CCP… The war plan for fighting a Taiwan "liberation" campaign is tattooed on the PLA's corporate memory.[7]

The United States' increasingly complicated relationship with China casts doubt on U.S. intentions regarding the defense of Taiwan. In 1979, it established diplomatic relations with the People's Republic of China and denormalized its relationship with Taiwan, including ending a mutual defense treaty. At the same time, the United States withdrew its forces from Taiwan, standing down the U.S. Taiwan Defense Command and the dedicated Navy Taiwan Patrol Force.[8] Since 1979, the United States has supported Taiwanese defense with intermittent arms sales and strait transits by U.S. warships and Coast Guard vessels but has not returned troops to the island in accordance with the 1979 Taiwan Relations Act. The act, which has been the legal guarantor for U.S. support of a free and independent Taiwan, is somewhat ambiguous. It codifies U.S. policy as:

> To provide Taiwan with arms of a defensive character; and to maintain the capacity of the United States to resist any resort to force or other forms of coercion that would jeopardize the security, or the social or economic system, of the people on Taiwan.[9]

Critically, it is *not* a mutual defense treaty that obligates the United States to defend Taiwan or to respond to PLA aggression; it is ambiguous in this way and defers the actual decision to use force to U.S. leadership at the time of a crisis. Even before the 1979 withdrawal

the United States maintained an intentional level of ambiguity in its commitment to the defense of Taiwan.[10] Because the United States does not base forces on Taiwan, conduct joint military training with Taiwanese forces, or have an alliance with Taiwan, the arms sales are the only real demonstration of the U.S. commitment to Taiwanese defense.[11] Thomas C. Schelling, one of the fathers of compellence theory, reminds us that "one cannot incur a genuine commitment [to defend another state] by purely verbal means," because other demonstrations of commitment are essential.[12] Ambiguous or uncertain commitments can lead to disastrous miscalculations. It is possible that the Korean War could have been prevented had the United States made clear its willingness to defend South Korea, and that direct Chinese involvement could have been avoided with more effective communication of their redlines as well.[13] Both were miscalculations because of a lack of mutual understanding about redlines and intentions. It is more

than just a coincidence that again, the United States is dangerously ambiguous about deterrence with China, a country as opaque to Americans as any.

Assessing the Balance of Forces

The local balance of forces in East Asia continues to tip ever more in favor of the PLA. Taiwanese forces have been unable to keep up with the rapid growth and modernization of the PLA and have prioritized "prestige" military capability over the anti-access/area denial (A2/AD) capabilities that would be more effective defending the island against the PLA.[14] Because of this, Taiwanese forces, while certainly still capable, are increasingly at risk of having to face PLA overmatch in

China's *Liaoning* aircraft carrier, accompanied by navy frigates and submarines, conducts military exercises 12 April 2018 in the South China Sea. (File photo released by the Xinhua News Agency)

A U.S. Air Force Lockheed F-104A Starfighter from the 83rd Fighter Interceptor Squadron stationed at Taoyuan Air Base, Taiwan, participates in Operation Jonah Able 15 September 1958 in response to the Quemoy Crisis. (Photo courtesy of the National Museum of the U.S. Air Force)

quantity but also in quality.[15] These changes in Taiwan's threat environment particularly the ambiguous nature of U.S. support and relative changes in the balance of forces are pushing Taiwanese leaders to alter their defensive strategy.[16] Perhaps more importantly in the overall balance, U.S. forces no longer boast the overmatch that they enjoyed during the 1995–1996 Taiwan Strait Crisis.[17]

Unconstrained by the Intermediate-Range Nuclear Forces Treaty, the PLA amassed hundreds of thousands of conventional ballistic missiles that now threaten U.S. ships and bases in Japan, Korea, and even Guam. During the same period the United States lost its bases in the Philippines—critical locations near China and on the South China Sea. The risk to the remaining bases and ships, especially to runways and aircraft carriers, is that China could swiftly neutralize American air and naval power in East Asia during a conflict. This would effectively prevent the United States from interfering with a PLA invasion of Taiwan because the United States does not have any forces in Taiwan.

A 2017 report by the Center for New American Security found that Chinese missiles were "the greatest military threat to U.S. vital interests in Asia."[18]

By marrying great accuracy with numerous ballistic missiles, China may have developed a capability that the Soviet armed forces never had: the ability to strike effectively, in a matter of minutes, U.S. and allied bases, logistical facilities, and command centers without resorting to the use of nuclear weapons, and without having established air superiority.[19]

Later in the year, a RAND research brief came to the same conclusion—that U.S. presence in the region was vulnerable because of the Chinese capability to target U.S. bases, specifically aviation infrastructure, which could be neutralized for at least the first forty days of a conflict—more than enough time for the PLA to gain a foothold in Taiwan.[20] Michael Chase's 2018 testimony before the U.S.-China Economic and Security Review Commission reported on the modernization of PLA capabilities and found that

[the PLA] Rocket Force's growing conventional ballistic and cruise missile capabilities

could pose a serious threat to U.S. forces and those of its allies and partners, including not only fixed facilities such as air bases but also surface ships, such as U.S. aircraft carriers.[21] Another analyst called the Kadena Air Base in Okinawa, Japan, a "sitting duck susceptible to missile attacks from the Chinese."[22]

Recent commentary has begun to reflect a sense of doom and gloom in the ability of U.S. forces in East Asia to credibly deter Chinese aggression. A steady parade of commentary has identified the vulnerabilities of aircraft carriers and large amphibious ships, the foundation of American deterrence in East Asia.[23] A 2018 *New York Times* article announced that the head of U.S. Indo-Pacific Command, Adm. Phillip Davidson, admitted, "China is now capable of controlling the South China Sea in all scenarios short of war with the United States."[24] The article was focused on the Chinese military buildups on several reefs and artificial islands in the South China Sea, but it came out at the same time as the U.S. military was acknowledging the threat of Chinese missiles to its ships and bases. Gen. Robert B. Neller, the previous commandant of the Marine Corps, expressed a similar pessimism responding to a question about increasing PLA dominance of the South China Sea.

> Sadly, I don't see us doing a whole lot to contest that. [The Chinese] are out there putting their marbles down, and we've got no marbles. We've got old marbles, but pretty soon there isn't going to be a place to put down marbles if they don't start doing something.[25]

Until recently, American naval forces were enough to credibly deter the PLA from attempting a cross-strait operation. Even though the U.S. Navy's Taiwan Patrol Force stood down in 1979, the Navy was still very engaged in enforcing the neutrality of the strait. During the 1995–1996 Taiwan Strait Crisis, the Navy sailed two carrier strike groups formed around the USS *Nimitz* and the USS *Independence*, through the strait to signal the United States resolve

United States Taiwan Defense Command badge

to defend Taiwan against aggression from Beijing. It is highly likely that PLA impotence in the face of the 1995–1996 strait transits provided the impetus for the PLA's robust A2/AD capability.[26] Even as late as 2008, a RAND study found that "successful invasion [of Taiwan] would be nearly impossible for the near term"; however, the study also foreshadowed the current balance of forces, noting that "Chinese force modernization (particularly the acquisition of systems to deny U.S. naval and air assets access to the area around Taiwan) may alter this balance in the next decade."[27]

Today, U.S. Navy and Coast Guard vessels make occasional strait transits as part of routine freedom of navigation operations.[28] However, these vessels would be extremely vulnerable if caught in the middle of a cross-strait operation and would be unable to prevent a cross-strait operation by the PLA on their own. It is also unlikely that the Navy would send an asset as valuable as a carrier strike group through the Strait of Taiwan today, even though in June 2020, the Navy surged three aircraft carriers to the Pacific.[29] It would also be difficult and risky, if not impossible for the United States to surge forces to Taiwan to support the Taiwanese military in the event of a conflict. PLA A2/AD capabilities could easily seal off Taiwan to even the expeditionary forces on the United States bases in Japan and Guam. Surge forces from the U.S. mainland would be weeks if not months away.[30]

In addition to the expansion of PLA missile capabilities, the People's Liberation Army Navy (PLAN) has also modernized and expanded its surface and subsurface fleet. A 2015 Office of Naval Intelligence report noted that in 2013 alone, the PLAN launched, commissioned, or laid down more than sixty ships. The report also noted that this level of shipbuilding was "more naval ships than any other country and is expected to continue this trend

Capt. Walker D. Mills, U.S. Marine Corps, is an infantry officer serving as an exchange officer with the Colombian Marine Corps.

through 2015–16" and beyond.[31] Other analysts noted that the Office of Naval Intelligence, "a body not known for hyperbole," called the PLAN shipbuilding program "remarkable."[32] This shipbuilding program is all the more threatening to the U.S. ability to reinforce Taiwan because most of the PLAN vessels are armed with anti-ship missiles, and every anti-ship missile in the PLAN outranges the U.S. Navy's standard anti-ship missile, the Harpoon.[33] Yoshihara and Holmes ultimately concluded in their book on the subject,

> If our diagnosis is correct, the United States and its allies are in a danger zone. … The martial balance may continue shifting toward the PLA in the coming years as Chinese forces expand, improve their arsenal and refine their tactics to make the best use of the contested zone.[34]

A 2015 Center for Strategic and Budgetary Assessments report, *Deploying Beyond Their Means: America's Navy and Marine Corps at a Tipping Point*, found that the Navy and Marine Corps are overextended and in many cases, unable to do much more than exist at forward locations in the Pacific.[35] This point was underscored by the 2017 USS *Fitzgerald* and USS *John S. McCain* collisions, which were attributed to a lack of personnel readiness and training in the Seventh Fleet. The Marine Corps commitments to the region have also been lagged over recent years as it prioritized ongoing combat operations in U.S. Central Command over rotational deployments to Okinawa and Australia. However, this year, the commandant of the Marine Corps, Gen. David Berger, announced that the corps would reprioritize operations in the Pacific.[36] The U.S. Army, despite having a Pacific presence similar in size to the Marine Corps, continues to prioritize deterrence in Europe, and even within U.S. Indo-Pacific Command, it is focused on deterring North Korea rather than China.

Deterrence

The concept of deterrence has benefited from considerable academic study, though not as much of it has been devoted to East Asia, or specifically to the issue of Taiwan; most studies have focused on nuclear deterrence issues or deterrence in Western Europe. According to Alexander L. George and Richard Smoke in *Deterrence in American Foreign Policy*, deterrence is defined as "the persuasion of one's opponent that the costs and/or risks of a given course of action he might take outweigh its benefit."[37] Karl P. Mueller described conventional deterrence "distilled to 140 characters" as "deterrence is causing someone not to do something because they expect or fear that they will be worse off if they do it than if they do not."[38] Robert Ross explained deterrence with regard to Taiwan in *International Security*:

> Effective deterrence demands that the status quo state possess the retaliatory capability to inflict costs that outweigh the benefits on a state that seeks to change the status quo. U.S. deterrence in the Taiwan Strait requires that Chinese leaders believe that the United States can use its military capabilities effectively in a war in the Taiwan theater and that it can inflict sufficient costs on China that outweigh the benefits of unification through war.[39]

In Taiwan's case, it is helpful to break deterrence down into two components: the perceived ability to prevent a PLA invasion (often called denial) and the perceived ability to effectively respond to one with force and fight a larger conflict.[40] The distinction is important because it is now likely that the United States has little or no ability to prevent such an action. Chinese missiles and missile-armed bombers could, with little or no warning, cripple the U.S. aviation support infrastructure in East Asia and neutralize flat-deck Navy vessels in the opening hours of a conflict. By targeting runways, China could prevent the United States from bringing other aircraft into theater, and China could use its considerable number of surface ships and submarines to prevent or delay the arrival of out-of-theater U.S. naval assets. The United States would still retain a long-range bomber force capable of striking PLA targets and probably submarine assets capable of striking targets on land and at sea. However, unsupported, these assets would be vulnerable to Chinese fighter aircraft and antisubmarine warfare efforts, respectively. A surprise PLA attack on U.S. forces and Taiwan could effectively isolate Taiwan from U.S. support and prevent U.S. interference in a cross-strait invasion for days, if not weeks. A RAND study found that with only 274 missiles (a small fraction of the PLA inventory), the PLA could keep Kadena Air Force Base in Okinawa close

Lance Cpl. Tyler Pearson watches his sector of fire 22 July 2019 during an amphibious assault on Kings Beach while participating in Exercise Talisman Saber 2019 in Queensland, Australia. To neutralize potential enemy capabilities resulting from the construction and militarization of artificial islands in the South China Sea, the Marine Corps is building a Marine littoral regiment specifically designed for island hopping offensive operations against defending enemy forces in a contested environment. The design of this force reduces the kinds of conventional equipment that can potentially slow quick-strike capabilities and will emphasize the employment of lethal air and ground unmanned platforms, long-range surface and subsurface vehicles, electronic warfare, and a greatly increased number of precision guided munitions, among other organizational and equipment innovations. Such a regiment could be maintained afloat or be stationed permanently at a forward deployed location. (Photo by Sgt. 1st Class Whitney C. Houston, U.S. Army)

to fighter operations for thirty days and three times as long for tanker operations.[41] This would be adequate time for the PLA to gain a foothold in Taiwan and expand its air defense umbrella across the strait. Similarly, a more limited PLA strategy of blockade or an extended air and missile campaign would effectively preclude U.S. forces from defending Taiwan later.

The second component of deterrence, the ability to react, now becomes important. The United States would be faced with the choice of acquiescing to the PLA invasion of Taiwan, a near fait accompli at this point, or marshaling forces to attempt a much larger and longer campaign to roll back the PLA A2/AD umbrella and ultimately land forces on Taiwan to reinforce the Taiwanese military or retake the island. Because the United States is reacting and could have been isolated from providing immediate support to Taiwan, the decision to intervene and support Taiwan becomes a deliberate rather than reflexive choice.

American leadership and the public may, at that juncture, decide that the sovereignty of Taiwan is not worth the cost of that larger campaign and a potentially much larger war with Beijing. In his 2013 essay on deterrence, Richard K. Betts argued that the political will to support Taiwan militarily in a crisis was an open question.

> There is no serious discussion about this, let alone consensus, among either U.S. voters or the foreign policy elite in Washington.[42]

In his book *Conventional Deterrence,* John Mearsheimer outlines his own theory of deterrence. His study focuses closely on conventional deterrence in Europe at the end of the Cold War, though his conclusions apply to the Taiwan case. Mearsheimer argues that deterrence fails when one side believes it has a relatively cheap way to achieve its objectives, which is often what he calls "the quick land grab."[43] He calls this the "limited aims strategy," writing,

> When strategic surprise is possible, the limited aims strategy has a high probability of success; it is simply not as ambitious a strategy as one that aims at decisive defeat of the enemy.[44]

If the PLA believes it can quickly achieve its "limited aim" of repatriating Taiwan through surprise and a lightning maritime campaign, U.S. deterrence based offshore is likely to fail. "In a crisis, if one side has the capability to launch a blitzkrieg, deterrence is likely to fail."[45] Robert Ross echoed the same argument in "Navigating the Taiwan Strait":

> Deterrence can also fail when the deterrer's military strategy cannot eliminate the challenger's option of a fait accompli strike that achieves the challenger's limited objectives and leaves war initiation or escalation to the deterrer. In the Taiwan Strait, failed conventional deterrence could entail China starting a war to seek the rapid political capitulation of Taiwan.

The larger risk to the PLA is a protracted war with the United States—a short, yet bloody conflict with Taiwan may be an acceptable price for reunification. Ross argues that what makes deterrence work is when an attacker (in this case China) does not believe they can rapidly achieve their limited aims and would face a larger and riskier war of attrition.

> Deterrence is likely to hold when a potential attacker is faced with the prospect of employing an attrition strategy … the possibility of becoming engaged in a long, costly war, even if success could be guaranteed, is a powerful deterrent to military action.[47]

To effectively deter China and the PLA, America needs to posture its forces in a way that would inevitably trigger a larger conflict and make plain its commitment to Taiwanese defense. American forces cannot be postured in a way where they could simply be isolated from the conflict by PLA A2/AD capabilities and a debilitating strike on their bases.

Altering the Balance: Returning U.S. Forces to Taiwan

It is time to consider returning U.S. forces to Taiwan. The presence of U.S. ground forces in Taiwan would significantly alter the deterrence paradigm and prevent Mearsheimer's blitzkrieg and fait accompli attacks or any misunderstanding of the United States' intentions. Forces in Taiwan would also communicate the message the United States will defend Taiwan in the clearest terms, in Schelling's words this communication is the "hardest part of deterrence.[48] The United States needs to "make [deterrence] persuasive, to keep it from sounding like a bluff."[49] A 2020 RAND study on the value of heavy ground forces for conventional deterrence concluded "our results provide consistent evidence for

The Chinese People's Liberation Army has transformed over the last two decades from a bloated and technologically inferior force to a modern and highly capable power that poses significant challenges to protecting U.S. interests in Asia. *The U.S.-China Military Scorecard: Forces, Geography, and the Evolving Balance of Power 1996-2017* compares and contrasts U.S. and Chinese military capabilities in ten operational areas, covering air and missile, maritime, space and counterspace, cyber, and nuclear domains. Additionally, it assesses the capabilities in the context of two scenarios at different distances from China, one centered on Taiwan and the other on the Spratly Islands. To view this document, visit https://www.rand.org/content/dam/rand/pubs/research_reports/RR300/RR392/RAND_RR392.pdf.
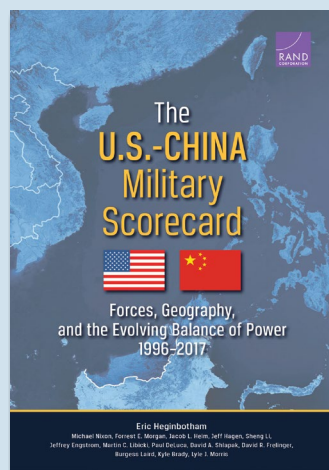
Thus, effective deterrence requires the United States to possess the specific capabilities necessary to frustrate a fait accompli strategy.[46]

Soldiers of the People's Liberation Army oversee military exercises while a map of Taiwan prominently hangs in the background. (Photo by the *South China Morning Post*)

the deterrent effects of heavy ground forces and air defense capabilities."[50] This finding was in comparison to the deterrent effect of light forces, mobile and sea forces, and also crisis deployments. The study found that crisis deployments, which are short-term deployments to deescalate a particular crisis at a particular time, had valuable deterrent effects but were limited in their ability to "prevent no-notice or short-notice *faits accomplis* launched by highly capable adversaries [emphasis in original]."[51] It also found "little, if any, evidence for the deterrent impact of air and naval forces."[52]

Ground forces based in Taiwan would not only be important for repelling a PLA invasion, but more importantly, they would act like what RAND calls a "tripwire"; that is, "smaller numbers of ground forces stationed to ensure that U.S. forces quickly become directly involved in a potential adversary invasion."[53] A small force would be economical and minimally antagonistic toward mainland China especially if it was only a rotational force. It would have the deterrent

effect of assuring the PLA that in the event of a cross-strait invasion, U.S. forces would be committed to the defense of Taiwan, avoiding what Betts called "the most dangerous long-term risk posed by Washington's confusion over deterrence"—lack of a clear message to Beijing.[54] Another RAND article on deterrence argued, "A defender can succeed by deploying sufficient local forces to raise the cost of a potential attack, to make escalation inevitable, and to deny the possibility of a low-risk fait accompli."[55]

U.S. ground combat forces are the most capable in the world, and it would be extremely unlikely that the U.S. government would not commit to a larger conflict after U.S. ground forces were engaged in Taiwan. Such a force would also allow U.S. and Taiwanese forces to train and exercise together like U.S. forces routinely do with South Korean, Japanese, and Filipino forces.

This year, the U.S. Marine Corps announced significant future changes in the way it mans, organizes, and equips the force so that it can operate as an "inside

► 1949-1969
Offensive Operations

► 1969-1979
Offensive and Defensive Operations as One

► 1979-2002
Defensive Operations

► 2002-2009
Effective Deterrence and Resolute Defense

► 2009-2017
Resolute Defense and Effective Deterrence

The Evolution of Military Strategy in Taiwan

force" in the first island chain. This reorganization will allow the corps to operate in accordance with its new operating concept, Expeditionary Advanced Base Operations.[56] The Marine Corps envisions itself operating as a highly mobile and distributed force using precision fires and unmanned aviation to strike PLA targets on land and at sea. This vision has been widely lauded; however, even the Marine Corps is unlikely to be able to prevent a PLA assault without basing these forces in Taiwan. Even the projected Marine Corps capabilities will not be able to reach the Strait of Taiwan from potential operating sites in Japan or the Philippines. Also, the authors of a 2018 RAND study found that

> light ground forces, particularly when deployed directly inside the borders of the partner or ally being threatened, may be associated with a higher risk of low-intensity

militarized disputes, but we do not find similar evidence of this risk for heavy ground forces in our statistical models.[57]

This finding stands in contrast to the Marine Corps' own conclusions that a lighter, more mobile force can provide superior deterrence than the medium-weight force that exists today. The Marine Corps recently announced that it was divesting of all of its tanks, reducing its number of attack helicopters, and reducing its purchase of F-35B fighter jets.[58] The Marine Corps' vision offers another path to effective conventional deterrence; however, that vision is still predicated on being at the point of crisis in time to prevent a fait accompli or blitzkrieg attack, which would potentially require forces based in Taiwan.

Similarly, the U.S. Air Force has been experimenting with a new concept Agile Combat Employment,

▶ From 2017 Till Now

Resolute Defense and Multi-domain Deterrence

Diagram of Overall Defense Concept

Adversary

Littoral Zone

Decisive Battle in Littoral Zone

Destruction of Enemy at Landing Beach

Force Protection at Full Length of the Operation

(Figure from the *Taiwan National Defense Report–2019*, https://www.ustaiwandefense.com/tdnswp/wp-content/uploads/2020/02/Taiwan-National-Defense-Report-2019.pdf)

where small, self-sufficient groups of tactical forces can be surged forward and operate from improvised or dual-use facilities in a crisis.[59] However, like Expeditionary Advanced Base Operations, Agile Combat Employment still requires access to the operational area and basing infrastructure in order to be effective. Also, while certainly a force multiplier, airpower alone has been historically ineffective in both deterrence and coercion.[60]

It is critical to recognize that basing U.S. forces in Taiwan would likely be considered an escalatory move by the People's Republic of China and that such a move would likely have other impacts in U.S. foreign policy beyond Taiwan. The full range of potential consequences of this decision are beyond the scope of this paper but would need to be thoroughly considered. Any U.S. forces in Taiwan would also have require an invitation by the Taiwanese government, something likely to provoke significant internal debate in Taiwan. On

the other hand, the loss of Taiwan as a friendly nation would throw the larger U.S. military strategies for defending Japan or the Philippines into disarray; control of Taiwan would give the PLA unfettered access to the Pacific Ocean and break any defensive strategy centered on the First Island Chain.

Conclusion

The United States needs to consider basing ground forces in Taiwan if it is committed to defending Taiwanese sovereignty. The regional balance of power in East Asia continues to tilt away from the United States and Taiwan toward mainland China. More specifically, the contours of the power balance make the possibility of a surprise, or fait accompli, attack on Taiwan more likely. If PLA forces can prevent U.S. forces from responding reflexively or immediately to PLA aggression, the United States will either accede to a quick PLA victory in a Taiwanese-mainland China conflict, or be forced to wage

a long, costly campaign to reestablish access to Taiwan with a far from certain outcome. U.S. leadership may have to face down domestic pressure at home and international pressure abroad against a deliberate and more global conflict with China.

U.S. ground forces in Taiwan, particularly combat credible, heavy forces could not only go far in repelling a PLA cross-strait operation but also serve as a tripwire that would inevitably trigger a wider conflict not acceptable to China. Most importantly, the presence of ground forces sends a clear message that the United States will support Taiwan militarily in a conflict with mainland China. These forces would also be able to train with Taiwanese forces and make it easier for follow-on U.S. forces to flow into Taiwan in the event of a conflict. If the United States is serious about Taiwanese defense, then it needs forces in Taiwan. Without U.S. forces in Taiwan, it is increasingly likely that China will attempt to integrate Taiwan into its republic by force. If current trends continue as projected and the United States does not increase its presence U.S. deterrence will continue to erode, paradoxically increasing the risk of conflict. ∎

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Drive Them into the Sea

Brian J. Dunn

China has a longstanding claim to Taiwan that "persistently remains the PLA's [People's Liberation Army] main 'strategic direction.'"[1] Now, however, China's rising military power has made this core interest an objective that is within its reach.[2] China would prefer to avoid outside intervention in this endeavor, but what would it have to achieve in order to capture and annex Taiwan without drawing in an American-led coalition?

Too much effort is spent looking at China's insufficient amphibious lift assets, whether Taiwan can resist until the American cavalry arrives, or whether Taiwanese asymmetric strategies could deter China by raising PLA casualties to unacceptable levels. What if China is willing to pay the price to invade? What if China can achieve key objectives within America's reaction time? And what if China doesn't share the assumptions about what it needs to take an army across the Taiwan Strait? A U.S. Army corps will be key to thwarting China's ambitions regarding Taiwan.

Taiwanese combined arms forces fire 30 May 2019 during the annual Han Kuang exercises in Pingtung County, Southern Taiwan, which primarily focus on repelling a Chinese invasion. (Photo by Chiang Ying-ying, Associated Press)

To defeat Taiwan and avoid war with America, all China needs to do is get ashore in force and impose a cease-fire prior to significant American intervention. Once that is achieved, a future phase two of overrunning or simply overawing Taiwan into submission can take place at a time of China's choosing after reinforcing and supplying its occupied Taiwan territory.

The only method of preventing China from successfully annexing Taiwan is to reject calls for a cease-fire, contain Chinese bridgeheads and airheads into as small a perimeter as possible, and then drive the invaders into the sea. Contrary to the limited Army supporting role envisioned in the Pacific, an Army corps will be indispensable and must be fully incorporated into U.S. Indo-Pacific Command (INDOPACOM) Taiwan contingency plans.[3]

Balance of Local Forces

In the past, the balance of forces for the Chinese and Taiwanese militaries was once irrelevant because the U.S. Navy dominated the Taiwan Strait. It is only in the last quarter century that China's increasingly sophisticated military with a full array of anti-access/area denial (A2/AD) weapons has made it considerably more difficult for America to stop a potential Chinese invasion with its forward deployed fleet in the western Pacific. The scale of China's naval power growth is illustrated by China's view of American naval power during the 1996 Taiwan Strait Crisis. The deployment of two American aircraft carriers to the Taiwan region was seen as not a mere signal but an "operationally effective force" that "reminded the PLA of American command of the seas in East Asia, and that the [PLA Navy's] ability to carry out missions opposed by the United States is nil, unless a way is found to nullify American sea power."[4]

Chinese A2/AD capabilities are now strong enough to make the U.S. Navy wary of approaching China. China's military strength compels the Navy to call on ground forces to help gain control of the seas near China. The U.S. Marine Corps has declared mobile antiship missiles its highest modernization priority in order to be "an arm of naval power."[5] The Army views the Pacific's dominant sea domain as requiring very different artillery brigade attributes to operate on small islands in support of the Navy.[6]

Taiwan has significant forces to attack Chinese invasion forces at sea, in the air, and on the ground. But as the balance of forces tilts toward China, Taiwan is stressing an asymmetric response including "information and electronic warfare, high-speed stealth vessels, shore-based mobile missiles, rapid mining and minesweeping, unmanned aerial systems, and critical infrastructure protection" to resist a Chinese invasion.[7] Taiwan is also developing an all-volunteer military that includes a reduction in active-duty strength. However, a shortage of volunteers has hampered Taiwan's ability to reach its manning goal of 90 percent of end strength, which is authorized at just 188,000.[8]

Taiwan fields 140,000 ground-force personnel in three army groups containing a total of three mechanized brigades, six motorized infantry brigades, four armor brigades, four air assault/aviation brigades, three artillery brigades, and two marine brigades.[9] Taiwan's air and naval assets are outnumbered, lack their former technological superiority, and lack the capability to reinforce or replace losses as do the Chinese forces closest to Taiwan.[10] Given that Taiwan's ability to defeat the PLA in and over the Taiwan Strait has eroded, I assume that China will gain sufficient air and naval superiority in the Taiwan Strait.

The U.S. Department of Defense (DOD) assesses that the PLA "continues to prepare for contingencies in

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the Taiwan Strait to deter, and if necessary, compel Taiwan to abandon moves toward independence. The PLA also is likely preparing for a contingency to unify Taiwan with the mainland by force, while simultaneously deterring, delaying, or denying any third-party intervention on Taiwan's behalf."[11]

The reorganization of the PLA Army (PLAA) into combined arms brigades, the expansion of army aviation, the creation of other combat support elements, improved air assault, and more close air support options have had the result of "improving and increasing its options for a Taiwan invasion."[12] The PLA Navy (PLAN), PLA Air Force, and PLA Rocket Force; the PLA's Strategic Support Force (space and cyberspace operations); and its Joint Logistics Support Force have all increased capabilities to support an invasion.[13] China's Eastern Theater Command would likely have operational control of forces in combat around Taiwan (see map).[14]

The DOD includes PLA forces in China's eastern and southern theaters as available for Taiwan

(Figure from the Office of the Secretary of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2020*, https://media.defense.gov/2020/Sep/01/2002488689/-1/-1/1/2020-DOD-CHINA-MILITARY-POWER-REPORT-FINAL.PDF)

China's Eastern Theater

contingencies. China has in those theaters 408,000 ground force personnel in five army groups credited with thirty PLAA combined arms brigades (five with amphibious roles), five air assault/aviation brigades, and five artillery brigades, plus six airborne and four marine brigades).[15] China's naval and air power are

overwhelming, and it has a significant ballistic and cruise missile inventory that can destroy and disrupt Taiwan's assets at the onset of war.[16] The rest of the PLA could reinforce or replace combat losses. The Chinese marines would be available for an invasion of Taiwan. However, they may not be more than a spearhead where needed given their traditional focus on the South China Sea and recent orientation to areas farther afield, including inland, as an expeditionary force as much as an amphibious force.[17]

Getting Ashore

Efforts to improve capabilities to invade Taiwan across all elements of the PLA are enabled by overwhelming defense spending, "much of it focused on developing the capability to unify Taiwan with the mainland by force," according to the DOD; yet the DOD seemingly minimizes the likelihood of a successful invasion.[18]

> Publicly available Chinese writings describe different operational concepts for an amphibious invasion of Taiwan. … The objective would be to break through or circumvent shore defenses, establish and build a beachhead, transport personnel and materiel to designated landing sites in the north or south of Taiwan's western coastline, and launch attacks to seize and occupy key targets or the entire island.
>
> Large-scale amphibious invasion is one of the most complicated and difficult military operations. Success depends upon air and maritime superiority, the rapid buildup and sustainment of supplies onshore, and uninterrupted support. An attempt to invade Taiwan would likely strain China's armed forces and invite international intervention. These stresses, combined with China's combat force attrition and the complexity of urban warfare and counterinsurgency, even

assuming a successful landing and breakout, make an amphibious invasion of Taiwan a significant political and military risk.[19]

The broad increase in Chinese military capabilities and China's great interest in annexing Taiwan by force if necessary is seemingly belied by the lack of PLAN amphibious capabilities or a marine force anywhere nearly as large and sophisticated as the U.S. Navy-Marine Corps team. The DOD notes the lack of PLAN landing ships, "suggesting a direct beach-assault operation requiring extensive lift is less likely in planning."[20] Further, Chinese amphibious capabilities are not exercised at levels above battalion, notwithstanding the reorganization and reequipping of amphibious and airborne forces.

These apparent shortcomings should not be taken to mean that an invasion is beyond China's capabilities but instead that the Chinese believe a 1944 D-Day-style invasion is unnecessary. Americans forget that their large Marine Corps is a unique force historically and that amphibious assaults predate the Marines.[21] The Marines developed specific tactics and equipment prior to World War II to make large-scale forcible entry and sustained combat ashore their missions, an approach followed since World War II until the recent focus on integration with the Navy.[22]

China has a large source of sealift in the form of civilian vessels built with a reserve military role.[23] Rather than traditional beach landings, China could seize ports using its special forces and some of its marines supported by the Chinese airborne group army and with follow-up civilian ships bringing in heavier forces. The Taiwanese army could be surprised in its barracks or beach defenses, unable to redeploy quickly and in good order under PLA missile and air attack while the Chinese airheads and bridgeheads are forming and most vulnerable to counterattack.[24]

China has experience with an amphibious campaign that diverges from American practice. Despite a lack of amphibious ships and trained personnel for its navy, the PLA successfully conquered Nationalist-held Hainan Island, which is only slightly smaller than Taiwan, in April 1950. The Chinese suffered heavy losses, but once ashore, captured over ninety thousand Nationalist troops. The landing was made possible despite superior Nationalist air and naval power by PLA

Previous page: People's Liberation Army Navy Marine Corps amphibious armored vehicles arrive at a beachhead 17 August 2019 during amphibious assault training in south China's Guangdong Province. (Photo by Yan Jialuo and Yao Guanchen, Ministry of National Defense of the People's Republic of China)

artillery used to "gain effectual control of the sea and airspace between Hainan and the mainland."[25]

Amphibious warfare is surely as difficult as the DOD states. But Hainan demonstrates that China can overcome the difficulties without using American methods.[26] China can invade Taiwan if it can nullify air and naval power that could stop the crossing by the PLA. New Taiwanese emphasis on asymmetric approaches to fighting the PLA, as well as U.S. Navy concerns about PLA A2/AD capabilities, indicate that China has already, at least in part, nullified air and naval power obstacles to invasion.

If the issue is simply one of a China-Taiwan war, China has the air and naval superiority to gain control of the Taiwan Strait in order to invade Taiwan. In 2012, the Taiwanese carried out a military exercise anticipating a direct Chinese attack on Taipei via a "landing on the shores of the Tamshui River, which flows through the capital."[27] If China can then build up forces faster than Taiwan can mobilize and counterattack, even if America can get naval and air power over and around Taiwan before China can defeat Taiwan's ground forces, what can be done to prevent PLA ground forces from remaining on Taiwan in a "frozen conflict" that it can heat up at a time of its choosing to complete the conquest?

The Tyrannies of Time and Distance

Discussions of the U.S.-Chinese military balance obscure the reality that China needs to defeat Taiwan

One of many pieces of nationalist propagandistic artwork created by students of the Sichuan Fine Arts Institute in Chongqing, China, that depicts various actions of a notional People's Liberation Army invasion of Taiwan. (Image courtesy of the Sichuan Fine Arts Institute)

to win. China only needs to *delay* American entry to be able to focus on defeating Taiwan. Can China achieve key objectives on Taiwan before America decides to intervene and before American (and allied) military forces are gathered and sent into battle?

China can impose a delay on American intervention by military deterrence and by using the time it takes American civilian leadership to decide to intervene. Samuel Huntington said of these two aspects of national security decision-making,

> One [world] is international politics, the world of balance of power, wars and alliances, the subtle and brutal uses of force and diplomacy to influence the behavior of other states. The other world is domestic politics, the world of interest groups, political parties, social classes with their conflicting interests and goals.[28]

One aspect of slowing American reaction time is the balance of power altered by a quarter century of rapid Chinese military modernization. The 1996 Taiwan Strait Crisis helped spur China to "focus on building capabilities to counter U.S. forces" and to deter Taiwan from moving toward independence.[29] Two American aircraft carriers are no longer an operationally effective force standing in China's way. A larger and

more sophisticated Chinese military requires America to reinforce forces in the western Pacific with forces based in America or even in other parts of the world to mass enough power to fight through the PLA A2/AD shield just to reach Taiwan.

> American forces could be readied, sent to sea, and ordered to shift to the Pacific after identifying Chinese preparations consistent with invasion plans in advance of the political decision to fight.

It is unlikely that China could carry out a "bolt from the blue" invasion; its preparation for an invasion could not remain hidden for long. But while a Soviet attack on West Germany would have immediately hit American forces, it would not be the case if China invaded Taiwan. If China refrains from striking American forces at sea, in Japan, or in Guam, American political leadership would be faced with the decision to fight a powerful China over a small and distant Taiwan. How quickly would America make that decision?

On three occasions when an enemy struck suddenly—in South Korea in 1950, in Kuwait in 1990, and after the 11 September 2001 al-Qaida terror attacks on the U.S. homeland—America's decisions to react were rapid. In 1950, President Harry Truman ordered American air and naval action just two days after North Korea invaded.[30] In 1990, President George H. W. Bush ordered American forces to Saudi Arabia less than a week after Iraq invaded Kuwait.[31] And the U.S. Congress authorized military force a week after the terror attacks.[32] China is a potential threat far larger than any of the enemies in those three examples, so the American debate could be longer, but China cannot count on a lengthy delay from America's domestic politics.

The international relations power aspect is not simply the military balance of power that has shifted in China's direction. The great physical distance that dominates American operations in the western Pacific requires time to overcome. Without American troops on the ground in Taiwan, there will be no automatic involvement on the first day as there would have been in West Germany during the Cold War. In the Korean War, despite a quick political decision to intervene

and American forces in nearby Japan, the initial ground force was not on the ground until a week and a half after the North Korean invasion, with three more divisions reaching South Korea over three weeks after the invasion.[33] In the 1990 Persian Gulf War, it took about six weeks to deploy the 24th Infantry Division (Mechanized) from the continental United States to Saudi Arabia—without Iraqi interference.[34] In a direct attack on America in 2001, it took over five weeks before the first Special Forces were on the ground in out-of-the-way Afghanistan.[35]

Certainly, American forces could be readied, sent to sea, and ordered to shift to the Pacific after identifying Chinese preparations consistent with invasion plans in advance of the political decision to fight. Some Army units could be moved to Taiwan in weeks—assuming the Navy and Air Force can keep air and sea lines of communication secure. But American armored forces located in the continental United States are unlikely to outpace a PLA buildup across a one hundred-mile strait. Those armored forces are the key to defeating a Chinese invasion of Taiwan.

Staying Ashore

Landing an invasion force on Taiwan is not beyond the PLA's capabilities and experience. American strategists must not conflate the prevention of China's total conquest of Taiwan with defeating China. What if the key objectives China must attain in an invasion are simply those that allow China to sustain a military presence there rather than breaking out and occupying the island? Failure to drive the PLA ground forces into sea could be tantamount to losing Taiwan. At best, America might find itself manning a second, Korea-like demilitarized zone in INDOPACOM in defense of Taiwan. At worst, America could be confronted later with a choice to liberate Taiwan using a U.S. Marine Corps less focused on large-scale amphibious warfare against Chinese A2/AD assets emplaced on Taiwan.

An image from Chinese social media depicts a People's Liberation Army command post exercise with a topographic map of the southern coastline of Taiwan prominently featured. (Photo courtesy of ETtoday)
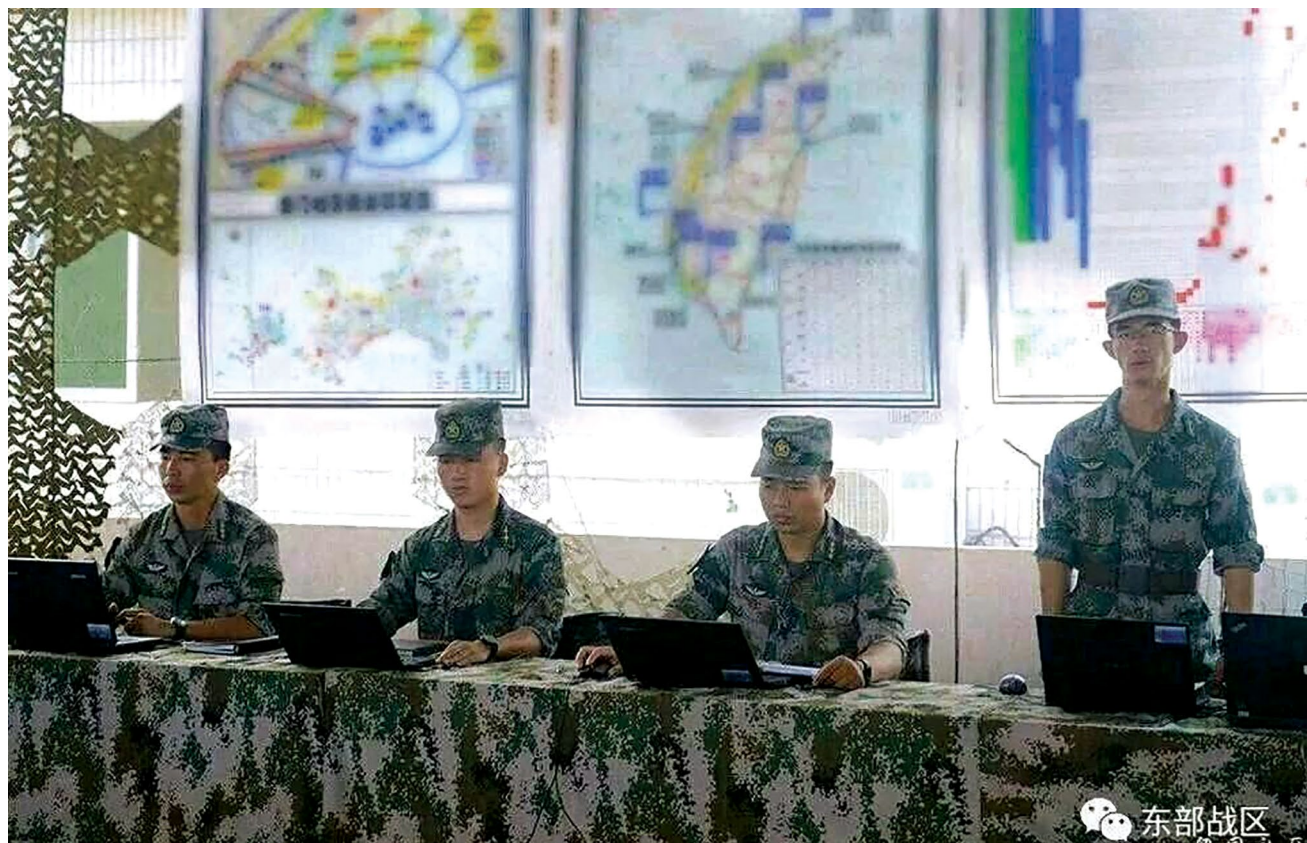
China does not need to destroy the Taiwanese military, occupy all of Taiwan, or even capture Taipei to win the war. If China can move sufficient army groups onto Taiwan and maintain a reasonable line of supply, it can suspend the war at any time. Taiwan's Overall Defense Concept's (ODC) core premise is that Taiwanese asymmetric warfare capabilities will target Chinese weaknesses most efficiently "while surviving long enough for third-party intervention."[36] Much of the world—perhaps America especially—would be relieved to have a cease-fire before American and Chinese forces are openly shooting at each other. China would use that cease-fire to strengthen its position on Taiwan and prepare for a second phase of the invasion: the breakout and final conquest of Taiwan.

By the end of June 1944, despite damage to one artificial port and the destruction of the other, nearly a million Allied troops were ashore on the Normandy beachhead following the D-Day invasion of German-occupied France.[37] The Germans missed their opportunity to throw the invaders into the sea and could not prevent an Allied buildup and subsequent drive into the heartland of Germany. Taiwan faces that dilemma if the PLA ground forces get ashore. The question is

whether Taiwan can throw the invaders into the sea. While Taiwan's new ODC focuses on asymmetric warfare capabilities, an approach "widely lauded by international experts," once the Chinese are ashore, the Taiwanese will desperately want force-on-force symmetrical ground combat capabilities with a conventional arsenal, such as Abrams tanks that Taiwan has decided to purchase, but that does not conform to the ODC.[38] Taiwan will need to deny China a pause to build up and resume the war months or years later.

The Taiwanese will need to drive the PLA ground forces into the sea and not just contain the Chinese in their enclaves. Taiwan has 140,000 ground troops in three group armies totaling twenty-two combat brigades facing a potential invasion force of over 400,000 ground troops in seven army groups (including marines and airborne forces), totaling fifty combat brigades in the eastern and southern theaters (those closest to Taiwan).[39] While the Taiwanese

might be thinking of how many PLA troops the Taiwanese ground forces could prevent from driving on Taipei until America intervenes, the correct question is how many PLA troops China would need on Taiwan to stop a Taiwanese counterattack. Consider that even a successful mobilization of Taiwanese reserve troops simply provides hometown local defense forces while the active forces carry out the main combat missions.[40] Is Taiwan's active army a "hollow shell" with shortages of personnel especially acute in combat units?[41] Would even one hundred thousand PLA troops with ample air and naval support be enough to dig in and hold on against Taiwan alone?

Even a fully manned active Taiwanese army equipped for large-scale combat operations may be inadequate. If so, simply pushing Taiwan to spend more on defense and correcting manning deficiencies is not enough. Taiwan will need help from abroad. America is the only source of ground forces capable of conducting offensive large-scale combat operations. The Marine Corps has significant forces deployed in the western Pacific, but the Marines are getting lighter and focusing more of their attention on supporting the Navy in a sea control battle in the new era of great-power competition.

That leaves the U.S. Army to provide a corps of two-to-four divisions plus supporting units to spearhead offensives against the PLA bridgeheads.[42] Naturally, this requires the Navy and Air Force to fight through China's A2/AD-supported naval and air forces to gain secure access to Taiwan's ports and airfields that would allow the deployment of the Army and provide joint U.S. forces opportunities to interdict China's line of supply across the Taiwan Strait.

This scale of U.S. Army involvement in INDOPACOM outside of the Korean Peninsula is truly a new idea in the twenty-first century.[43] The infrastructure and logistics support to carry it out are insufficient. A proposal patterned on spending to improve logistics capabilities in NATO could broaden INDOPACOM's reach.

> Under the multiyear INDOPACOM proposal, $5.8 billion would be for offensive missiles and multiple radars, including a space-based radar; another $5.8 billion would be used to distribute forces around the region; and $5.1 billion would be for

"logistics and security enablers"—a broad array that includes counterpropaganda operations, fuel storage, battle-damage repair facilities, as well as military aid for forces in Indonesia, Malaysia, the Philippines, Thailand, and Vietnam.[44]

This is just a first step in enabling the Army to decisively intervene to prevent China from beginning the conquest of Taiwan. If afloat Army prepositioned stocks for heavy divisions are needed in the western Pacific to speed their deployment, they should be added to the proposal.

Victory

Taiwan is a location around China's periphery where the Army's core competency of large-scale combat operations could potentially be carried out for a decisive outcome. Counting on a Taiwanese ODC asymmetric strategy of inflicting casualties to deter China from invading is risky. Years ago, it seemed as if there was a limit to what China would endure to take Taiwan:

> Some months ago it was reported that the Chinese high command regularly provides the leadership with its predictions for an attack against Taiwan. Apparently in 2004 it emerged under questioning that about 21,000 deaths were expected in such an attack. Contrary to Western views that China has unlimited manpower and that human life is cheap, the leadership found this figure unacceptable.[45]

The problem is that a casualty-inflicting deterrence strategy relies on the enemy tolerance for deaths. We cannot know when the Chinese will see an improving—or fleeting—military situation that brings the anticipated death toll within an acceptable range. And we cannot know when the domestic situation will make Chinese Communist Party (CCP) rulers far more tolerant of military casualties. The Chinese military exists to keep the CCP in power.[46] If the CCP needs to conquer Taiwan to remain in power, PLA casualties may not be a limiting factor.

Once the PLA is ashore, the missions to defeat the invasion will be to contain and isolate the bridgeheads; prevent them from consolidating; slow the PLA buildup; and enable a Taiwanese counterattack as soon as possible before the PLA ground forces bring

in heavy weapons and supplies to fight a major battle. These missions can be promoted by

- selling Taiwan the heavy armor, attack helicopters, and fires and support assets needed to defeat the PLA in large-scale combat operations;
- sending U.S. Army fires, aviation, air and missile defense, and other supporting units to Taiwan (in addition to Navy, Marine Corps, and Air Force assets) to support a Taiwanese counteroffensive; and
- dispatching an Army heavy corps to Taiwan.

The latter step will bolster Taiwanese morale with the knowledge that maneuver unit reinforcements are coming and will provide the core for a decisive counterattack if Taiwan's maneuver brigades alone are unable to drive the PLA ground forces into the sea.

The idea that Taiwan must be able to resist the PLA until America intervenes is not without merit. The question is, what does America do when its forces arrive? Arriving in time to enforce a cease-fire is simply a means to delay losing. Just the credible threat of a U.S. Army corps capable of deployment to Taiwan might deter China from starting an invasion; China might no longer be confident that the main effort will remain one between the PLA and the Taiwanese ground forces. And if deterrence fails, the corps will drive the enemy into the sea. ◼

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14. Office of the Secretary of Defense, Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2020 (Washington, DC: Department of Defense, September 2020), 98, accessed 8 September 2020, https://media.defense.gov/2020/Sep/01/2002488689/-1/-1/1/2020-DOD-CHINA-MILITARY-POWER-REPORT-FINAL.PDF.

15. Office of the Secretary of Defense, *Annual Report to Congress 2019*, 115–17.

16. Ibid.

17. Michael A. Hanson, "China's Marine Corps Is on the Rise," *Proceedings* 146, no. 4 (April 2020): 30.

18. Office of the Secretary of Defense, *Annual Report to Congress 2019*, 90–91.

19. Ibid., 85.

20. Ibid., 88–89.

21. Jeremy Black, *Combined Operations: A Global History of Amphibious and Airborne Warfare* (Lanham, MD: Rowman & Littlefield, 2018), x.

22. U.S. Marine Corps, *Force Design 2030* (Washington, DC: Department of the Navy, March 2020), 2, accessed 5 June 2020, https://www.hqmc.marines.mil/Portals/142/Docs/CMC38%20Force%20Design%202030%20Report%20Phase%20I%20and%20II.pdf?ver=2020-03-26-121328-460.

23. Agence France-Presse, "Report: China Orders Civilian Ships Adapted for Military Use," Defense News, 18 June 2015, accessed 5 June 2020, https://www.defensenews.com/global/asia-pacific/2015/06/18/report-china-orders-civilian-ships-adapted-for-military-use/.

24. Brian J. Dunn, "The Taiwan Crisis Part III," *The Dignified Rant* (blog), 11 April 2005, accessed 5 June 2020, https://thedignifiedrant.blogspot.com/2005/04/taiwan-crisis-part-iii.html. You may find it of interest to see my scenario for a Chinese invasion of Taiwan, informed by the precedent of the German invasion of Norway in 1940 despite lack of naval superiority. I was way off on potential timing, but the outline remains relevant.

25. Cole, *The Great Wall at Sea,* 19.

26. As noted, one should not forget the example of Germany's invasion of Norway in the face of British naval superiority. The German air assault on Crete in 1941 despite British naval superiority

is also a cautionary tale about what a determined and resourceful enemy can achieve.

27. Agence France-Presse, "Taiwan Launches Drill Simulating Chinese Invasion," Yahoo News, 16 April 2012, accessed 5 June 2020, https://malaysia.news.yahoo.com/taiwan-launches-drill-simulating-chinese-invasion-101747070.html.

28. Amos A. Jordan and William J. Taylor Jr., *American National Security: Policy and Process* (Baltimore: Johns Hopkins University Press, 1981), 201.

29. Defense Intelligence Agency, *China Military Power: Modernizing a Force to Fight and Win* (Washington, DC: Defense Intelligence Agency, 2019), 3, accessed 5 June 2020, https://www.dia.mil/Portals/27/Documents/News/Military%20Power%20Publications/China_Military_Power_FINAL_5MB_20190103.pdf.

30. Richard W. Stewart, ed., *American Military History, Volume II: The United States Army in a Global Era, 1917-2008* (Washington, DC: U.S. Army Center of Military History, 2010), 224, accessed 5 June 2020, https://history.army.mil/html/books/030/30-22/CMH_Pub_30-22.pdf. I chose these American decisions to fight as examples of significant wars against invaders in distant countries that were not central security concerns. Although the war in Afghanistan was the result of a direct attack on America, al-Qaida was the attacker while the Taliban government was arguably the Pakistan-backed invader of Afghanistan. But for the Taliban defense of al-Qaida, I think it is possible that America's response to 9/11 could have been more legal, indirect kinetics through proxies, and diplomatic than a direct attack and overthrow of the Taliban government of Afghanistan.

31. William M. Vogt and Carl A. Gnam Jr., eds., *Desert Storm* (Leesburg, VA: Empire Press, 1991), 35.

32. Joint Resolution to Authorize the Use of United States Armed Forces Against Those Responsible for the Recent Attacks Launched against the United States, S.J. Res. 23, 107th Cong. (2001), accessed 5 June 2020, https://www.govinfo.gov/content/pkg/PLAW-107publ40/html/PLAW-107publ40.htm.

33. Stewart, *American Military History*, 227–29.

34. Robert H. Scales Jr., *Certain Victory: The U.S. Army in the Gulf War* (Washington, DC: Brassey's, 1997), 87–89.

35. Richard D. Hooker Jr. and Joseph J. Collins, eds., *Lessons Encountered: Learning from the Long War* (Washington, DC: National Defense University Press, September 2015), 24–25.

36. Drew Thompson, "Hope on the Horizon: Taiwan's Radical New Defense Concept," War on the Rocks, 2 October 2018, accessed 5 June 2020, https://warontherocks.com/2018/10/hope-on-the-horizon-taiwans-radical-new-defense-concept/.

37. Stewart, *American Military History*, 152.

38. Corey Lee Bell, "Is Taiwan Really Buying the 'Wrong' Weapons?" The Diplomat, 31 March 2020, accessed 5 June 2020, https://thediplomat.com/2020/03/is-taiwan-really-buying-the-wrong-weapons/.

39. Office of the Secretary of Defense, *Annual Report to Congress 2019*, 115–17.

40. Ian Easton et al., *Transformation of Taiwan's Reserve Force* (Santa Monica, CA: RAND Corporation, 2017), 28, accessed 5 June 2020, https://www.rand.org/pubs/research_reports/RR1757.html.

41. Paul Huang, "Taiwan's Military Is a Hollow Shell," *Foreign Policy* (website), 15 February 2020, accessed 5 June 2020, https://foreignpolicy.com/2020/02/15/china-threat-invasion-conscription-taiwans-military-is-a-hollow-shell/.

42. Since the Persian Gulf War, the Army has routinely planned for major regional contingencies (or conflicts) or major theater wars organized around four to five divisions. I assume that the distance, lack of time, People's Liberation Army anti-access/area denial assets, and the required existence of a viable Taiwanese army to support push the number of American divisions to a lower level.

43. Brian J. Dunn, "The Tyranny of the Shores: Army Planning for the Asia-Pacific Theater," *Military Review* 98, no. 2 (March-April 2018): 101–7, accessed 5 June 2020, https://www.armyupress.army.mil/Portals/7/military-review/Archives/English/Dunn-Tyranny-of-Shores.pdf.

44. Joe Gould, "Congress Seeks to Confront China With $6 Billion in New Defense Spending," *Foreign Policy* (website), 16 April 2020, accessed 5 June 2020, https://foreignpolicy.com/2020/04/16/congress-us-china-competition-6-billion-new-defense-spending/.

45. Norman Friedman, "World Naval Developments," *Proceedings* 131, no. 11/1,233 (November 2005), accessed 5 June 2020, https://www.usni.org/magazines/proceedings/2005/november/world-naval-developments.

46. Franz-Stefan Gady, "Interview: Ben Lowsen on Chinese PLA Ground Forces," The Diplomat, 8 April 2020, accessed 5 June 2020, https://thediplomat.com/2020/04/interview-ben-lowsen-on-chinese-pla-ground-forces/.

United States Strategic Assessment of the People's Republic of China

For those readers interested in learning more about the current U.S. administration's assessment of the threats posed by strategic competition with China, your attention is invited to the "Military and Security Developments involving the People's Republic of China 2020." This publication provides a summary of policy concerns and overview of key global initiatives guided by implementation of the *National Security Strategy* as it specifically applies to the People's Republic of China. To view this document, visit https://media.defense.gov/2020/Sep/01/2002488689/-1/-1/1/2020-DOD-CHINA-MILITARY-POWER-REPORT-FINAL.PDF.

MILITARY AND SECURITY DEVELOPMENTS
INVOLVING THE PEOPLE'S REPUBLIC OF CHINA
2020

ANNUAL REPORT TO CONGRESS

OFFICE OF THE SECRETARY OF DEFENSE

The estimated cost of this report or study for the
Department of Defense is approximately $168,000
in Fiscal Years 2019 - 2020. This includes $14,000 in
expenses and $154,000 in DoD labor.
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Russian New Generation Warfare

Deterring and Winning the Tactical Fight

James Derleth, PhD

In the twenty-first century we have seen a tendency toward blurring the lines between the states of war and peace. …

… The very "rules of war" have changed. The role of nonmilitary means of achieving political strategic goals has grown, and, in many cases, they have exceeded the power of force of weapons in their effectiveness. …

… Frontal engagements of large formations of forces at the strategic and operational levels are gradually becoming a thing of the past. …

… Asymmetrical actions have come into widespread use, enabling the nullification of an enemy´s advantages in armed conflict. Among such actions are the use of special operations forces and internal opposition to create a permanently operating front through the entire territory of the enemy state, as well as informational actions, devices, and means that are constantly being perfected. …

… The differences between strategic, operational, and tactical levels, as well as between offensive and defensive operations, are being erased.

—Gen. Valery Gerasimov,
Chief of the Russian General Staff

The Russian view of deterrence is based on the integrated use of nonmilitary, conventional, and nuclear instruments.[1] In contrast, the traditional Western conceptualization of deterrence is based on the deployment and employment of conventional and nuclear forces.[2] A crucial difference is that Russia does not believe deterrence stops after the outbreak of conflict. It will continue to apply these instruments throughout all stages of a political-military crisis in an attempt to control escalation and ensure conditions favorable to Russia. Therefore, to foster deterrence and to prevail if deterrence fails, the United States must have the capability to counter instruments across all areas (nonmilitary, conventional, nuclear), at all levels (tactical, operational, strategic), and throughout all phases of a conflict.[3] Although the U.S. Army faces complex, dynamic, multi-domain challenges in the contemporary operational environment (OE), it has largely focused its education and training on deterring, and if necessary, defeating near-peer adversaries in large-scale combat operations (LSCO). As seen from Crimea to Georgia, the focus on higher-level conventional and nuclear forces' deterrence has allowed Russia to achieve its national objectives through a variety of nonlethal instruments.

Since employment of conventional and nuclear systems is already part of the Army's education and training, it is important to note that nonlethal instruments such as information warfare (IW) have not been integrated into education and training; however, they would significantly affect the ability of tactical formations to deter or win if conflict occurs.[4] Traditionally, in U.S. military doctrine, information activities have been viewed in a supporting role by facilitating and enabling

> "I took this photo while on a mission to Georgia that coincided with the anniversary of VE Day. In Russian, I asked the pensioners if they spoke English. They didn't. I then asked how they could make a sign in English if they didn't speak English. They said 'friends' made the signs for them. For me, a very powerful image showing the pervasiveness of Russian information warfare. What would our forces do if confronted by this group while supporting Georgia in a conflict against Russia?"
>
> —James Derleth

A pro-Russian, anti-NATO demonstration on Victory in Europe (VE) Day 9 May 2019 in front of The Joseph Stalin Museum in Gori, Georgia. (Photo by author)

combat operations. In contrast, Russia has always had a holistic and integrated approach to IW.[5] The revolution in information technology has only strengthened this perspective. Russian military leaders believe that a conflict's decisive battles are in the information domain and that information operations in the early phases are more decisive than later conventional warfare. IW, as the decisive form of maneuver, targets an adversary's vulnerabilities and center of gravity, with lethal operations executed to produce an information effect rather than delivering a lethal effect.[6] In this way, the roles of the two domains have been reversed. Rather than a supporting operation, information campaigns have become the supported operation.[7] Consequently, information superiority is central to enhancing the utility of tools across all domains in all phases of a conflict.[8] Without it, it is impossible to prevail in combat. IW can create or leverage local military and political support, discredit leadership, slow decision-making, nurture dissent, shape public opinion, foster or manipulate local sources of instability, and mobilize local populations against foreign forces; all of these minimize the likelihood of lethal engagements or improve their likelihood of success.[9] In summary, IW

can be a prelude to armed conflict, a preparation of the battlefield preceding the deployment of forces, or an end in itself, through which Russia and other adversaries weaken superior U.S. forces without firing a shot.

Although Army doctrine notes that "in modern conflict, information has become as important as lethal action in determining the outcome of operations," soldiers in tactical formations have a limited ability to understand or influence the information environment (IE).[10] Notably, doctrine is based on the assumption that IW will only be executed at operational or strategic levels. This is questionable given the contemporary threat environment.[11] Since tactical formations will be significantly impacted by enemy IW regardless of the phase of the conflict, they must have the capability to understand and influence the IE. Without this capability, adversaries will continue to frame the conditions of future competition and conflict.

The Threat: A Vignette

A national election in Estonia saw a nationalist pro-Estonian party take control of the government.[12] Frustrated by the election outcome and lack of citizenship, the ethnic Russian minority—20 percent of the population—demonstrated against the government. The Russian government released statements of support; launched a covert campaign to shape perceptions with more than two hundred thousand Twitter accounts sending 3.6 million tweets using #protectRussiansinEstonia; and initiated snap exercises by Russian ground, naval, and air forces in the region.

A week later, a group of demonstrators gathered in the town square of Narva, a town in eastern Estonia on the border with Russia.

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Complaining their human rights had been violated, the demonstrators demanded autonomy for Narva, official status for the Russian language, and Estonian citizenship. When Estonian police moved in to break up the demonstration, they were confronted by an armed group of Russian-speaking, military-age men. Fearing the loss of innocent lives, the police left the area. At the same time, a group of armed demonstrators attacked the Estonian border post with Russia, forcing it to be abandoned. A third group of demonstrators took over the local telecommunications center (cutting internet, radio, telephone, and television traffic to and from Narva), surrounded the police station, and stormed the town hall, forcing Mayor Tarmo Tammiste to resign. Georgi Zhukov, a spokesman for the demonstrators, declared the establishment of the Narva People's Republic. He asked Russia for assistance "to ensure peace and public order against nationalists and fascists." These actions were supported by a series of cyberattacks that overwhelmed the Estonian government, economy, news, telecommunication, and military networks throughout the country. The cyberattacks crippled the government's command-and-control capability as well as its ability to communicate with its population and allies. The cyberattacks included the release of videos that purportedly showed Estonian security forces massacring Estonian residents of Russian descent. These products proliferated across the internet via bots, stoking anti-Estonian and anti-U.S. opinion among Russian-sympathetic and nonaligned populations across Europe. The Estonian government declared the establishment of the Narva People's Republic illegal and demanded the return of control to elected officials.

A week after the border post was abandoned, Estonian intelligence estimated that a few hundred people in military uniforms without insignia entered the region from Russia. In response, the Estonia government called an emergency meeting of the North Atlantic Council (NAC) to invoke the collective defense provision (Article 5) of the North Atlantic Treaty. The NAC refused Estonia's request due to a lack of clarity regarding the nationality of the armed group and origins of the cyberattacks. Despite the NAC's refusal, the United States agreed to deploy the 2nd Cavalry Regiment (2CR) to Estonia. Its mission was to support the Estonian army,

local security forces, and the local government in achieving the following four objectives:

- preserve Estonian territorial integrity,
- support Estonian government legitimacy,
- foster internal security, and
- prevent the conflict from escalating.

As 2CR prepared to roll out of its garrison in Vilseck, Germany, several videos, purportedly showing the sexual

its formations, fostered civil unrest, and controlled key infrastructure. Russia's decisive operation of IW began as 2CR, with its limited IW capabilities, training, and education, arrived with its lethally focused formations. In other words, 2CR forfeited the initiative to Russia before the first Stryker rolled out of the gate. This significantly limited the 2CR commander's combat power and ability to execute his or her mission.

> "The roles of the two domains have been reversed [lethal operations versus information operations]. Rather than a supporting operation, information campaigns have become the supported operation.

assault of several underage German nationals by U.S. personnel, surfaced on social media. The videos appeared to implicate key leaders within the regiment, prompting German political authorities to call for an investigation. Local citizen protests erupted outside the gates of the 2CR garrison, delaying the unit's deployment.

During 2CR's road march, there were electronic warfare attacks on its communication network that limited its soldiers' abilities to communicate among themselves and with local security forces. Targeting U.S. and European antiwar groups, untraceable "patriotic" social media posted videos of ethnic Russians' livestock and crops being damaged and the disruption of essential services (water, electricity, sewerage) in Narva. These messages shifted U.S. and European public opinion from opposing aggression to supporting citizenship and the use of Russian language for minority residents of Estonia.

Upon its arrival in Estonia, 2CR moved to its cantonment area in Jõhvi, fifty kilometers northwest from Narva. The day after 2CR arrived, an unidentified, unmanned aerial vehicle was spotted overflying the 2CR base. Shortly afterward, soldiers' cell phones were unable to access the local cellular network, and they began receiving text messages telling them to leave the area to prevent their "destruction."

In summary, *before* 2CR reached its cantonment area, the enemy had executed multi-domain operations that established information dominance, created local and international opposition to its presence, limited its ability to communicate with the local government or

This is not a hypothetical threat! The relationship between contemporary warfare and IW can be clearly seen in the Russian takeover of Crimea in February 2014. IW operations included engaging local people through interviews, "surveys," referendum rallies, and pro-Russian gatherings; mass dissemination of posters, brochures, leaflets, and text messages; severing fiber-optic cables; taking control of the Simferopol internet exchange point; disabling Ukrainian television facilities and replacing them with Russian channels; electronic warfare attacks on Ukrainian military communications; defacement of Ukrainian and NATO websites; the release of telephone recordings and email correspondence between Ukrainian, European Union, and U.S. officials; the creation of fake websites in which Russia targeted Ukrainian military units using soldiers' social media accounts; the use of real websites (Facebook, Twitter, Odnklassniki, Vkontakte) to spread panic and rumors; and distributed denial-of-service attacks that sent thousands of text messages and telephone calls to military and civilian leaders' cell phones to prevent them from communicating and responding to Russian actions. This information dominance also ensured that only Russian-sourced information was available, resulting in a significant percentage of the population welcoming Russian troops. These actions, combined with nonlethal Spetsnaz reconnaissance and destabilization actions, broke the morale and combat effectiveness of the Ukrainian military, leading to the surrender of sixteen

thousand soldiers.[13] This was an excellent example of multi-domain operations extending across the entire information spectrum. Consequently, Russia was able to manipulate Ukrainian perceptions, prevent a military response, influence its decision-making process, foster distrust in the government, and limit its strategic behavior while minimizing the use of lethal force.

Challenges

The Army has belatedly realized the next generation warfare challenge and is reorganizing Army Cyber Command to synchronize Army capabilities in order to "change how we conduct Information Warfare."[14] This will be accomplished by "integrating and employing Intelligence, Information Operations, Cyber, Electronic Warfare, and Space capabilities to provide Combatant Commanders with options to compete below the level of armed conflict."[15] While important goals, there are many challenges to implementing this guidance at the tactical level. Based on observations at the Joint Multinational Readiness Center (JMRC) in Hohenfels, Germany, they include the lack of understanding of the IE; failure to integrate the IE into the operations process; inability to integrate force multipliers; ineffective civilian partner coordination; reluctance to acknowledge that physical actions have informational effects; and a lack of doctrine, education, and training that would allow formations to mitigate enemy actions in order to regain tactical and operational initiative.

Lack of understanding of the IE. While formations are adept at identifying lethal threats, they have a limited understanding of nonlethal ones that can have an even larger impact on maneuver. Future conflicts will occur in and among a connected population in a complex IE. Without improving situational awareness, combat power will be degraded. Although commanders need to understand and influence the IE, the staff section tasked with understanding the OE (intelligence) is focused on enemy groups and actions that could have lethal consequences. Consequently, the IE is neglected. Commanders do not establish priority intelligence requirements or use standard templates to understand the IE. They rationalize this by simplifying the battlespace and applying a narrow view of the worst-case scenario that has enemy forces overrunning their own formations. Unfortunately, modern conflict is not a simple "either/or." Formations that do not understand

the IE are "blind" as to how they are perceived by the population and how they are portrayed by the enemy. This blindness limits a formation's ability to gain information about enemy forces and positions and to identify enemy supporters or special operations forces behind the space where ground troops operate. As an illustration, to protect its communications, a rotational unit (RTU) in a recent JMRC training exercise decided to use the Secret Internet Protocol Router Network (SIPRNet) as its primary communication medium. The result was that while the unit could communicate securely internally, because unclassified information systems had been neglected, the RTU had no understanding of the local environment. This lack of understanding resulted in local demonstrations that restricted the unit's main supply routes, internally displaced people interfering with its maneuver, and forewent a wealth of actionable information gathered by internally displaced people as they fled from the enemy. This lack of visibility and understanding of the IE directly impacted the RTU's combat power.

Failure to integrate the IE into the operations process. The goal of the operations process, as stated in Army Doctrine Publication 5-0, *The Operations Process*, is to understand, visualize, and describe the operational environment; make and articulate decisions; and direct, lead, and assess military operations.[16] Observations from JMRC continue to show that tactical formations are unable to integrate an understanding of the IE into operations. This is the result of commanders not understanding the IE or viewing their actions only through a physical lens.[17] This lack of understanding is compounded by a platform-centric, enemy weapon system/lethality-focused staff structure. For example, a staff can easily target an enemy tank formation but is challenged to target an enemy social media site that is instigating demonstrations on main supply routes. Consequently, formations cannot identify or support friendly information-related capabilities (IRC), identify and target enemy IRCs, or integrate this information into operations and plans. This is part of a larger institutional challenge, namely, that "victory" can only be won with lethal combat operations.

Inability to integrate force multipliers. U.S. Army doctrine emphasizes the commanders' responsibility for operating across all domains, including the IE. However, tactical formations lack many organic

Russia's "little green men" facilitating the annexation of the Ukrainian peninsula of Crimea in February 2014. Armed with modern Russian small arms and equipment, these personnel were a mix of Russian special forces and other elite Russian units who wore unmarked green uniforms. Russia initially claimed that the little green men were local Ukrainian patriotic militias sympathetic to Russia's claims regarding Crimea. They seized and occupied the Simferopol Parliament and numerous Crimean military bases, and blockaded the Simferopol International Airport to prevent the arrival of Ukrainian government forces. Simultaneously, Russia engaged in a broad hybrid warfare global campaign using a wide variety of instruments including diplomacy, economic warfare, electronic warfare, cyberattacks, propaganda, and focused violence to achieve its objectives. Western countermeasures and responses have been largely ineffective against the Russian fait accompli. (Screenshot from Hromadske.tv)

information-related capabilities. When deployed, tactical formations are given force multipliers such as civil affairs (CA) and psychological operations (PSYOP) units. However, these and other force multipliers (public affairs officers [PAO], electronic warfare officers [EWO], etc.) are often unable to influence the IE. There are several reasons for this situation, but two stand out:

1. Force multipliers do not work with tactical formations until an exercise or deployment. Since they are not organic to the staff and have had limited interaction with it, it is a challenge for them to integrate their knowledge of the OE knowledge into operations. This is partially the result of home-station training areas and ranges not replicating the multifaceted, dynamic, IE found in modern conflicts. Typically, commanders create their own opposing forces that lack enemy information warfare capabilities. Thus, they do not understand how force multipliers can facilitate their operations. The consequence: units that live, eat, and breathe lethality at home are immersed into drastically different, realistic environments during exercises or deployments. However, they have no or limited training to win in them.

2. Force multipliers do not create products linked to the commander's intent and operational goals. Too often, force multipliers' products are linked to their narrow military operational specialty rather than to a commander's end states.[18] For example, the

civil affairs annex that should doctrinally "describe how civil affairs operations, in coordination with other military and civil organizations, supports the concept of operations described in the base plan or order" often simply lists aspects of the civil situation (areas, structures, capabilities, organizations, people, and events).[19] Since commanders do not see these things tied to their intent, force multipliers are often assigned other duties such as guarding the tactical operations center or emplacing obstacles. A related challenge is the inability of force multipliers to break out of their "cylinders of excellence." At JMRC, we often notice that because they define their missions narrowly, the IRCs (CA, PAO, PSYOP, etc.) do not synchronize their activities, limiting their effect. In contrast, the United Kingdom's 77th Brigade combines these capabilities in information, activity, and outreach teams that "support the military objectives of Commanders … using non-lethal engagement and legitimate non-military levers as a means to adapt behaviours of the opposing forces and adversaries."[20]

Ineffective civilian partner coordination. Russian IW is focused on delegitimizing adversaries' military and political structures. However, because of operational timelines, limited technical competence, and lack of legal authority, U.S. tactical formations are often unable to mitigate the effects of enemy IW. To mitigate these limitations, a whole-of-government approach is required. International organizations, nongovernmental organizations, local governments, media, and marketing agencies can all support and/or execute tactical information activities. The failure of tactical formations to identify civilian partners (CP) and integrate their knowledge and expertise into operations limits their ability to maneuver and consolidate gains. Although there are numerous reasons for this situation, key factors include not identifying CP in the OE and not understanding CP capabilities and capacities.

Reluctance to acknowledge that IW impacts maneuver. There has been a dramatic shift in contemporary military operations as a result of globalization, diffusion of military-related technologies, and an information revolution. Despite that, the current emphasis on LSCO has caused commanders to focus on the maneuver aspects of offensive and defensive operations. Even though the manipulation of information can create denial effects and is doctrinally a form of fires,

commanders have not applied the necessary staff resources and leadership emphasis to the cognitive aspect of operations.[21] This lack of applied resources can have numerous consequences that limit the ability to conduct multi-domain operations. This includes allowing the enemy to set conditions, neutralizing military superiority, limiting the ability to employ force, and creating a negative public image for both friendly and enemy audiences.

Lack of counter-new generation warfare (NGW) education and training. Traditional and contemporary Army education and training is focused on major combat operations against the armed forces of a peer or near-peer state. Notwithstanding, despite the lack of success in Vietnam, Afghanistan, Iraq, Libya, Mindanao, Syria, and trans-Sahel, there is a continuing belief that if the Army can effectively execute LSCO, it can win any conflict. This belief has three significant flaws. First, as those conflicts showed, applying LSCO education and training in non-LSCO operations invariably forces widespread and costly adaptation, endangering mission success. Second is the common assumption that the next clash will be a great-power conventional conflict. As former Secretary of Defense James Mattis was fond of pointing out, the enemy also "gets a vote." Aware their militaries cannot win a conventional battle against the United States, adversaries such as China, Iran, and Russia are heavily investing in asymmetrical resources to exploit American vulnerabilities. Third, the Army's desire to focus on traditional threats does not change the reality that a host of nonstate actors continue to foster unrest throughout the world, undermining regional stability and threatening U.S. interests. Data shows that most armed conflicts today are internationalized civil or substate conflicts rather than conventional interstate wars.[22]

To win tomorrow's conflicts, the Army must revise its education and training. Although some combat training centers have created and integrated a complex and dynamic IE into their exercises, too often it is ignored or its value is diminished so it does not "interfere with other training objectives." Consequently, RTUs are not receiving a realistic training experience. A good rule of thumb for measuring progress would be assessing whether an RTU is expending equal or greater resources to IE operations as physical operations. While this would be a measure of performance rather than a measure of effect, it would at least force commanders to try and integrate IE operations into planning.[23]

Sgt. Camille Coffey (*left*), Spc. Victorious Fuqua (*center*), and Spc. Mark Osterholt, all cyber operations specialists from the Expeditionary Cyber Support Detachment, 782nd Military Intelligence Battalion (Cyber), conduct offensive cyber operations as part of the Cyber-Electromagnetic Activities Support to Corps and Below program 18 January 2018 during the 1st Stryker Brigade Combat Team, 4th Infantry Division, National Training Center Rotation 18-03 at Fort Irwin, California. (Photo by Steven Stover, 780th Military Intelligence Brigade Public Affairs)

Another challenge is the lack of counter-NGW education to train leaders to defeat multi-domain operations like Russia's annexation of Crimea. Other than a course created at JMRC, the author is unaware of any other U.S. or NATO course that trains tactical formations to defeat NGW tactics.

Understanding and Influencing the IE

While many of these challenges are the result of decisions and polices made at higher levels, tactical formations will have to deal with their ramifications. Consequently, what can they do to win in the contemporary information environment? There are many things that can be done, including home-station education, force multiplier integration at the Leadership Training Program (LTP), predeployment IE analysis, modifying the task organization, integrating CP into staff processes, putting a senior leader in charge of integrating force multipliers and CP, and fostering commander involvement.

Home-station education. Realizing that RTUs lack counter-NGW warfare training, JMRC created a three-day program of instruction and a mobile training team to deliver it at home station. Unfortunately, most RTUs decline the opportunity, which means they have limited or no experience understanding OE or defeating nonlethal threats before their deployments to training centers or to real-world missions. Formations that do not train for realistic contingencies put themselves at a tremendous disadvantage. Similar to the situation during the Afghanistan and Iraq wars (when a counterinsurgency mobile training team was sent to every deploying brigade), a simple fix would mandate that every RTU take the counter-NGW or a regionally based variant course before going to a combat training center. This is especially important since NGW is based on a state of permanent conflict.

Students from Resident Elective Course A350, Decisive Action Tactical Application, plan large-scale combat operations in a class exercise 14 May 2019 at the Command and General Staff College (CGSC) at Fort Leavenworth, Kansas. There is a continuing belief that if the Army can effectively execute large-scale combat operations, it can win any conflict. (Photo by M. Shane Perkins, CGSC instructor)

Foster enabler integration at the Leadership Training Program. Since many of the force multipliers are reservists, they are often not included in rotational unit LTPs. Therefore, they do not start working with their supported unit until they are deployed. This makes it difficult for them to synchronize with brigade staffs and demonstrate their value to commanders focused on lethal threats. To mitigate this challenge, the 353rd Civil Affairs Command mandated that all of its formations (1) must take JMRC's counter-NGW course before deployment to the Europe Command theater and (2) representatives from the deploying battalion must attend rotational planning conferences and the LTP. This allows them to start working with their supported unit early and show their value to the team.

Predeployment information environment analysis. Just as units should identify enemy formations in their OE before they deploy, they should also identify enemy information operations that have been shaping the OE before they arrive. At a minimum, this analysis should include key allied and enemy IRCs, information on how the enemy is influencing OE, possible courses of action to negate enemy activities that could impact combat operations, and measures of effect that would show the success of counter-information operations.

Modifying the task organization. Since the IE is global and constantly evolving, understanding it is a more complex challenge than understanding the physical environment. Thus, more staff resources must be dedicated to understanding the IE. Focusing on the "effect" to be achieved (e.g., degrading enemy combat power, fostering freedom of maneuver, and prioritizing information-related priority intelligence requirements) will facilitate change. During an OE after action review, the RTU commander who used SIPRNet as his or her communication medium realized SIPRNet had numerous unintended consequences that limited his or her combat power. To mitigate this problem, the commander created an "engagement cell" that included not only the usual suspects (PAO, CA, EWO, PSYOP) but also intelligence and operations. The engagement cell included staff members to ensure the former's information was included in planning and targeting. To foster integration and improve the ability to target nonlethal threats, the commander also had JMRC's mobile training team deliver their counter-NGW course to the cell.

Integrating civilian partners into staff processes. Because CP will already be operating in areas where a unit will deploy, they will have local contacts, expertise, and capabilities to shape or counter-shape the IE. However, too often this opportunity is wasted because formations fail to identify CP and integrate them into operations. A simple way to mitigate this challenge is to ensure they are included in the staff processes. For example, doctrinally, there should be an Information Operations Working Group (IOWG) at brigade. Integration into the IOWG would allow CP to identify the enemy narrative and develop messaging to defeat it as well as to identify nonlethal targets for the targeting process. CP involvement in operations can also be facilitated through the existing fires architecture. When commanders want to deliver lethal effects, they simply tell their fires coordinator the effect they want to achieve. The well-established system then executes the task. If commanders provided the same guidance for nonlethal/information effects, and since brigades lack capability and capacity in the information space, the fires coordinator would have to use the CP and force multipliers to achieve the desired effect.

Putting a senior leader in charge of nonlethal activities. RTUs who have had the most success in multi-domain operations have tasked a senior leader—usually the deputy brigade commander or brigade executive officer—to oversee the integration of information into operations. While other staff officers are doubtless capable, they lack the rank to integrate force multipliers and CP into brigade operations.

Involve commanders. The most important way to win the information war is to ensure commanders at all levels know that this battle is the "commanders' business." Leaders must understand how the IE can either facilitate—or limit—their ability to conduct the multi-domain operations required to achieve desired end states. A good place to start would be evaluating commanders not only on their gunnery scores but also on their ability to execute multi-domain operations in the contemporary OE.

Summary

The dichotomy of war and peace is no longer a useful construct for thinking about national security or tactical operations. We are in a state of competition and conflict that is continuous and dynamic. As a number of adversaries have demonstrated, they can achieve their national interests short of conflict with nonlethal operations centered around information warfare. Writing in the Russian journal *Military Thought*, I. Vorobyev and V. Kiselyov noted, "Information is now a type of weapon. It does not simply compliment fire strikes and maneuvers, it transforms and unites them." Thus, "information is becoming *an armed struggle in its own right* [emphasis in the original]."[24] To defeat multi-dimensional threats, U.S. tactical formations must be able to understand and influence the IE. Although the Army has belatedly started to realize the existence of the information competition/conflict continuum, it has focused its attention and resources in support of LSCO.[25] However, the nature of emerging threats (e.g., precision long-range fires, multilayered air defense systems, drones, electronic warfare, cyberattacks, etc.) suggests that future military operations will be conducted by tactical units. That is why in contrast to U.S. policy, Russia has been modifying its force structure away from divisions to lower-level (brigade and battalion) formations. Russia believes that success in the contemporary operating environment requires lower-level formations to have a degree of autonomy and capability to perform a variety of missions as the factors noted above will severely limit the ability of higher echelons to support them. This includes "psychological warfare and information confrontation sub-units."[26] Until the Army recognizes that the information space is not only a domain of conflict but also the center of gravity, we will face two stark alternatives: tolerate nonconventional challenges or escalate them to armed conflict. This leaves the United States at a tremendous disadvantage against adversaries who have weaponized information to influence and shape interactions across domains in support of integrated tactical combined arms maneuver. ∎

Notes

Epigraph. Valery Gerasimov, "The Value of Science Is in the Foresight: New Challenges Demand Rethinking the Forms and Methods of Carrying out Combat Operations," *Voyenno-Promyshlennyy Kurier* (Military-industrial courier), 26 February 2013, accessed 12 May 2020, http://usacac.army.mil/CAC2/MilitaryReview/Archives/English/MilitaryReview_20160228_art008.pdf.

1. Russian Federation Ministry of Defence, *Military-Encyclopedic Dictionary* (2015), accessed 28 May 2020, http://encyclopedia.mil.ru/encyclopedia/dictionaryIdetails_rvsn.htm ?id=14206@morfDictionary, cited in K. Ven Bruusgaard, "Russian Strategic Deterrence," *Survival: Global Politics and Strategy* 58, no. 4 (2016). See also Okke Geurt Lucassen, "In Between War and Peace: The Conceptualization of Russian Strategic Deterrence," UPTAKE Working Paper No. 16/2018 (Tartu, Estonia: University of Tartu Press, 2018), 10, accessed 28 May 2020, http://www.uptake.ut.ee/wp-content/uploads/2019/03/Okke_Lucassen_WP2.pdf. Strategic deterrence "is the collective of instruments, using soft and hard power, by employing (dis-)information, cyber, economic, military, and political tools, both offensively and defensively, continuously regardless of peace or war-time, in pursuit of deterring violent conflict, de-escalation (or early cessation) of military conflict, or stabilizing military-political situations in (potential) adversary (coalitions of) states of interest, on favorable conditions for the Russian Federation."

2. Thomas Schelling, *Arms and Influence* (New Haven, CT: Yale University Press, 1966).

3. Gerasimov, "The Value of Science Is in the Foresight." Gerasimov notes that contemporary operations follow a roughly 4:1 ratio of nonmilitary and military measures with nonmilitary competition under the control of military formations using information operations, private military organizations, special operations forces, and internal protest potential. This view has two significant ramifications: first, the West considers nonmilitary measures as ways to avoid war while Russia considers them weapons of war (see Charles Bartles, "Getting Gerasimov Right," *Military Review* 96, no. 1 [2016]: 34); and second, tactical formations will be faced with a myriad of nonlethal challenges that will affect their combat power and ability to maneuver.

4. See Catherine Theohary, "Information Warfare: Issues for Congress," Congressional Research Service (CRS) Report No. R45142 (Washington, DC: CRS, 2018), accessed 28 May 2020, https://crsreports.congress.gov/product/pdf/R/R45142/5. Unlike information operations (IO), information warfare (IW) is not defined in U.S. military doctrine. This article uses IW to describe the execution of offensive and defensive actions in the information domain to compel opponents to succumb to one's will through the use of cyber operations, psychological operations, electronic warfare, operations security, and military deception.

5. "Convention on International Information Security," Ministry of Foreign Affairs of the Russian Federation, 27 September 2011, accessed 20 May 2020, http://www.mid.ru/en/foreign_policy/official_documents/-/asset_publisher/CptICkB6BZ29/content/id/191666. See also *On Russia's Information War Concepts before the House Armed Services Subcommittee on Emerging Threats and Capabilities*, 115th Cong., 1st sess. (2017) (statement of Timothy Thomas), accessed 20 May 2020, http://docs.house.gov/meetings/AS/AS26/20170315/105689/HHRG-115-AS26-Wstate-ThomasT-20170315.pdf. A 2011 Russian strategy document, the "Convention on International Information Security," defines IW as a "conflict between two or more States in information space with the goal of inflicting damage to information systems, processes, and resources, as well as to critically important structures and other structures; undermining political, economic, and social systems; carrying out mass psychological campaigns against the population of a State in order to destabilize society and the government; as well as forcing a State to make decisions in the interests of their opponents." In the military realm, the goal of IW is to (1) to achieve political objectives without the use of military force and (2) shape a favorable international response to the deployment of its military forces, or military forces with which Moscow is allied. Information "weapons" are the technology, means, and methods used in information warfare.

6. Joint Publication (JP) 3-13, *Information Operations* (Washington, DC: U.S. Government Printing Office, 2012, incorporating Change 1, 2014), ix. According to the doctrine, Information operations are "the integrated employment, during military operations, of information-related capabilities in concert with other lines of operation to influence, disrupt, corrupt, or usurp the decision-making of adversaries and potential adversaries while protecting our own." Per this definition, IO is focused on coordination and synchronization only during military operations and relies on other capabilities to deliver effects. Monica Ruiz, "Impacts of Russian Information Operations: Technical and Psychological Aims," International Centre for Defence and Security, 24 October 2017, accessed 13 May 2020, https://icds.ee/impacts-of-russian-information-operations-technical-and-psychological-aims/. In contrast, Russia's holistic approach to IW is divided into two components: "information-technical," which aligns with the Western definition of electronic and cyberwarfare and is centered on technical capabilities; and "information-psychological," which resembles the NATO concept of strategic communications and psychological operations, centered on influence operations.

7. Keir Giles, "Delivery of Information Effects by Russian Special Forces and Intelligent Agencies" (working draft).

8. Sergei Modestov, "Strategicheskoe sderzhivanie na teatre informatsionnogo protivoborstva," *Vestnik Akademii Voennykh Nauk*, no. 1 (2009): 26, cited in Dmitry (Dima) Adamsky, "Cross-Domain Coercion: The Current Russian Art of Strategy," Proliferation Papers 54 (Paris: Institut français des relations internationales [ifri], November 2015), accessed 13 May 2020, https://www.ifri.org/sites/default/files/atoms/files/pp54adamsky.pdf. In the Russian view, the information campaign blurs the line between war and peace, front and rear, levels of war (technical, operational, strategic), forms of warfare (offense and defense), and forms of coercion (deterrence and compellence).

9. See Adamsky, "Cross-Domain Coercion," 24; Gerasimov, "The Value of Science Is in the Foresight"; Margarita Jaitner, "Russian Information Warfare: Lessons from the Ukraine," in *Cyber War in Perspective: Russian Aggression against Ukraine*, ed. Kenneth Geers (Tallinn, Estonia: NATO Cyber Defence Centre of Excellence, 2015), 91, accessed 13 May 2020, https://ccdcoe.org/uploads/2018/10/CyberWarinPerspective_full_book.pdf. This can be accomplished with disinformation, misinformation, cyberattacks, digital sabotage, etc. The importance of gaining information superiority in warfare can be seen in how much time and resources have been spent in creating official, semiofficial, and unofficial sources of war-related information, including dedicated YouTube channels.

10. Field Manual (FM) 3-0, *Operations* (Washington, DC: U.S. Government Publishing Office [GPO], 2017), para. 2-113. For additional information, see JP 3-13, *Information Operations*, ix–x.

11. It is not clear how cyberattacks, electronic warfare, long-range precision fires, drones, etc., would allow higher echelons to communicate with, let alone execute tactically relevant information warfare operations.

12. Adapted from "Weaponized Information: One Possible Vignette," *Mad Scientist Laboratory* (blog), U.S. Army Training and Doctrine Command, 7 November 2019, accessed 13 May 2020, https://madsciblog.tradoc.army.mil/190-weaponized-information-one-possible-vignette/.

13. See Vladimir Sazonov, Kristiina Müür, and Igor Kopõtin, "Methods and Tools of Russian Information Operations Used Against

Ukrainian Armed Forces: The Assessment of Ukrainian Experts," ENDC Occasional Papers No. 6/2017 (Tartu, Estonia: Estonian National Defence College [ENDC], 2017): 59; Oscar Jonsson and Robert Seely, "Russian Full Spectrum Conflict: An Appraisal After Ukraine," *Journal of Slavic Military Studies* 28, no. 1 (2015): 15; Jaitner, "Russian Information Warfare: Lessons from the Ukraine," 91; Gleb Pakharenko, "Cyber Operations at Maidan: A First-Hand Account," in Geers, *Cyber War in Perspective*, 61; Michael Kofman et al., *Lessons from Russia's Operations in Crimea and Eastern Ukraine* (Santa Monica, CA: RAND Corporation, 2017), 5–31, accessed 13 May 2020, https://www.rand.org/pubs/research_reports/RR1498.html.

14. A note on definitions. Emerging and somewhat ambiguous contemporary threats, many of which fall short of the threshold historically consider "war," have been referred to as hybrid warfare (United States and NATO), new generation warfare (Russia), unrestricted warfare (China), and gray-zone competition (various). The lack of a common definition allows various entities to choose a definition that fits their world view or bureaucratic mandate. This allows the rationalization of preconceived notions and more importantly, limits our understanding of the actual threats. In an attempt to mitigate this challenge, this article uses the following definitions:

Hybrid threat. ADP 3-0, *Operations*, describes a hybrid threat as "a diverse and dynamic combination of regular forces, irregular forces, criminal elements, or a combination of these forces and elements all unified to achieve mutually benefiting effects." It is important to note that this view is focused on military threats, not a type of warfare and that hybrid threats can be defeated by the application of military power. Army Doctrine Publication (ADP) 3-0, *Operations* (Washington, DC: U.S. GPO, 2019), 1-3.

New generation warfare (NGW). NGW seeks to bring about political or military outcomes without resorting to overt conventional military means, although the latter is not excluded. In NGW, the main battlespace is the mind. As a result, contemporary conflict is dominated by information warfare to achieve superiority by morally and psychologically demoralizing an enemy's military personnel and civilian population before and, if necessary, during hostilities. This reduces the need to deploy lethal military power, making the opponent's military and civilian population support the attacker to the detriment of their own government. Consequently, the Russians have placed the idea of influence at the center of their operational planning. This is relevant for understanding its strategic significance since the operationalization of NGW cannot be characterized as a military strategy in the traditional Western sense. For example, hybrid warfare can be part of NGW but should not define it. This description is based on Russian actions in Ukraine, as well as speeches and writings from Russian military leaders and researchers. See Jānis Bērziņš, "Not 'Hybrid' but New Generation Warfare," in *Russia's Military Strategy and Doctrine*, ed. Glen E. Howard and Matthew Czekaj (Washington, DC: Jamestown Foundation, 2019), accessed 13 May 2020, https://jamestown.org/wp-content/uploads/2019/02/Russias-Military-Strategy-and-Doctrine-web.pdf?x30898&x87069; see Gerasimov, "The Value of Science is in the Foresight"; S. G. Chekinov and S. A. Bogadanov, "On the Nature and Content of a New-Generation War," *Voennaia Mysl* [Military thought], no. 10 (2013), accessed 13 May 2020, https://pdfs.semanticscholar.org/c887/4593b1860de12fa-40dadcae8e96861de8ebd.pdf.

Unrestricted warfare. Unrestricted warfare is based on the belief that globalization acts as a force multiplier for less traditional nonmilitary methods like diplomatic warfare (alliance building), economic warfare (trade sanctions), cyberwarfare (hacking attacks), or environmental warfare (man-made natural disasters). Thus to

achieve strategic goals, China must move beyond the purely military force power spectrum and operate in multiple domains. In 2003, China issued the "Political Work Guidelines of the People's Liberation Army." It described "three warfares," which are to be applied during peacetime and military operations. The first, "psychological warfare," is the application of military, diplomatic, and economic pressure to weaken adversaries' will. The second, "public opinion warfare," is focused on the overt and covert manipulation of information to influence international and domestic audiences. The third, "legal warfare," refers to the exploitation of international norms to accomplish Chinese objectives. See Nan Li, "Unrestricted Warfare and Chinese Military Strategy" (Singapore: Institute of Defence and Strategic Studies, 2002), accessed 28 May 2020, https://www.rsis.edu.sg/wp-content/uploads/2014/07/CO02022.pdf; Sergio Miracola, "Chinese Hybrid Warfare," Italian International Institute for Political Studies, accessed 13 May 2020, https://www.ispionline.it/en/pubblicazione/chinese-hybrid-warfare-21853.

Gray-zone competition. This is defined as "covert or illegal activities of nontraditional statecraft that are below the threshold of armed organized violence; including disruption of order, political subversion of government or non-governmental organizations, psychological operations, abuse of legal processes, and financial corruption as part of an integrated design to achieve strategic advantage. This competition among and within state and non-state actors falls between the traditional war and peace duality and is characterized by ambiguity about the nature of the conflict, opacity of the parties involved, and uncertainty about the relevant policy and legal frameworks." Notably, all three descriptions feature gray-zone competition. See Frank Hoffman, "Examining Complex Forms of Conflict: Gray Zone and Hybrid Challenges," *Prism* 7, no.4 (2018): 36; Philip Kapusta, "The Gray Zone," *Special Warfare* 28, no. 4 (October-December 2015): 18–25, accessed 13 May 2020, https://www.soc.mil/SWCS/SWmag/archive/SW2804/GrayZone.pdf.

Summary. In contrast to the Russian and Chinese descriptions of contemporary warfare, which are based on multi-domain operations facilitated by information warfare occurring simultaneously covertly and overtly below the traditional threshold of war; the U.S. view is focused on overt military threats that can be defeated by the application of military power. As Frank Hoffman notes, embracing this narrow conventional conception of conflict does not prepare future leaders for the range of emerging threats. It is also not conducive to developing doctrine and training: "A myopic focus on conventional threats obscures the complexity of the phenomena and oversimplifies the challenges. It may also be a way of overemphasizing a preferred mission set for a conventional, big war paradigm, which narrows our cognitive understanding of conflict." Frank G. Hoffman, "Hybrid Warfare and Challenges," *Joint Force Quarterly*, no. 52 (2009, 1st Quarter): 34–59, accessed 13 May 2020, https://smallwarsjournal.com/documents/jfqhoffman.pdf.

15. Sydney Freedberg Jr., "The Golden 5 Minutes: The Need for Speed in Information War," Breaking Defense, 21 October 2019, accessed 13 May 2020, https://breakingdefense.com/2019/10/the-golden-five-minutes-the-need-for-speed-in-information-war/.

16. Army Doctrine Publication 5-0, *The Operations Process* (Washington, DC: U.S. GPO, 2019), v.

17. "Information Warfare Foundational Study (Working Draft)" (Fort Gordon, GA: U.S. Army Cyber Command, 10 July 2019), 8.

18. Jen Judson, "Army Learning How Cyber Support Plays Role in Tactical Operations," DefenseNews, 10 November 2015, accessed 13 May 2020, http://www.defensenews.com/story/defense/land/army/2015/11/10/army-learning-how-cyber-support-plays-role-

FUTURE WARFARE WRITING PROGRAM

Call for Speculative Essays and Short Works of Fiction

Military Review calls for short works of fiction for inclusion in the Army University Press Future Warfare Writing Program (FWWP) for 2020. The purpose of this program is to solicit serious contemplation of possible future scenarios through the medium of fiction in order to anticipate future security requirements. As a result, well-written works of fiction in short-story format with new and fresh insights into the character of possible future martial conflicts and domestic unrest are of special interest. Detailed guidance related to the character of such fiction together with submission guidelines can be found at https://www.armyupress.army.mil/Special-Topics/Future-Warfare-Writing-Program/Future-Warfare-Writing-Program-Submission-Guidelines/. To read previously published FWWP submissions, visit https://www.armyupress.army.mil/Special-Topics/Future-Warfare-Writing-Program/.

in-tactical-operations/75545442/. During a pilot exercise, which attempted to incorporate cyber support into an infantry brigade, an observer noted that "while we provided some very technically smart folks, they weren't able to communicate with the brigade commander and staff in terms that they were able to easily understand, what capabilities we are providing and how best to integrate those capabilities."

19. FM 6-0, *Commander and Staff Organization and Operations* (Washington, DC: U.S. Government Printing Office, 2014), Annex D.

20. "77th Brigade Influence and Outreach," British Army, accessed 13 May 2020, https://www.army.mod.uk/who-we-are/formations-divisions-brigades/6th-united-kingdom-division/77-brigade/. The 77th Brigade is a combined Regular and Army Reserve unit formed in 2015. Its missions include audience, actor and adversary analysis, information activity and outreach, counteradversarial information activity, support to civilian partners, collecting media content, disseminating media, monitoring the IE, evaluating the IE, advising and training on human security (emphasizing the security of people and their social and economic environment rather than the security of the state), and providing support to current operations.

21. *DOD Dictionary of Military and Associated Terms* (Washington, DC: Department of Defense [DOD], 2020), accessed 13 May 2020, http://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/dictionary.pdf. Actions taken in cyberspace that create noticeable denial effects (i.e., degradation, disruption, or destruction) or manipulation that leads to physical domain denial are considered a form of fires.

22. Alexandra Evans and Alexandra Stark, "Bad Idea: Assuming the Small Wars Era is Over," Defense 360, Center for Strategic and International Studies, 13 December 2019, accessed 14 May 2020, https://defense360.csis.org/bad-idea-assuming-the-small-wars-era-is-over/.

23. "Information Warfare Foundational Study," 35.

24. I. Vorobyov and V. Kiselyov, "Russian Military Theory: Past and Present," *Military Thought* 22, no. 1 (2013): 56.

25. For example, the U.S. Army is planning on creating two new integrated intelligence, information, cyber, electronic warfare, and space battalions to help shape the operational environment, monitor information streams, and conduct information operations or cyber missions.

26. "В Белоруссии начались учения 'Нерушимое братство-2016'" [In Belorussia begins the exercise Unbreakable Brotherhood 2016], RIA, 23 August 2016, accessed 14 May 2020, https://ria.ru/world/20160823/1475032583.html, cited in Giles, "Delivery of Information Effects by Russian Special Forces and Intelligent Agencies." Consecutive exercises in 2016 included the use of "psychological warfare and information confrontation sub-units."

A conference attendee photographs an image depicting global internet attacks on 16 August 2016 during the 4th China Internet Security Conference (ISC) in Beijing. Having reached a level of sophistication today that renders even the most advanced internet protection systems vulnerable to sustained hacking attacks, Chinese government-sponsored internet theft of proprietary information of all kinds (e.g., industrial, scientific, military, economic, and personal) from the United States and other nations has reached pandemic proportions. (Photo by Ng Han Guan, Associated Press)

Steal the Firewood from Under the Pot

The Role of Intellectual Property Theft in Chinese Global Strategy

Capt. Scott Tosi, U.S. Army

In September 2015, the United States and China reached an agreement in principle that specified, among other stipulations, that "neither the U.S. or the Chinese government will conduct or knowingly support cyber-enabled theft of intellectual property [IP]."[1] However, less than two years later, China's use of cyber-enabled IP theft was outlined bluntly in the 2017 National Security Strategy, which stated that "every year, competitors such as China steal U.S. intellectual property valued at hundreds of billions of dollars."[2] This snapshot of cyber-enabled IP theft represents a broader issue of IP theft by China that spans a wide range of methods and means. According to estimates, China's total annual amount of IP theft ranges from $225 billion to $600 billion; moreover, China is responsible for 50 to 80 percent of all IP theft occurring against the United States.[3]

Chinese IP theft has broad implications for the U.S. Army and the Department of Defense (DOD), particularly as U.S. strategic focus shifts from counterinsurgency to large-scale combat operations among great powers.[4] IP theft of Army and DOD equities and research and development threatens U.S. military technological superiority in future decades as China states it "will upgrade our military capabilities," so "that by the mid-21st century our people's armed forces have been fully transformed into world-class forces."[5]

Early Chinese IP Theft: Hide Our Capacities and Bide Our Time

Capt. Scott Tosi, U.S. Army, is the company commander for Headquarters and Headquarters Company, 501st Military Intelligence Brigade in Camp Humphreys, Korea. He holds a BS in history and social sciences education from Illinois State University and an MPA from the University of Illinois–Springfield. His assignments include Yongsan, Korea; Fort George G. Meade, Maryland; and Camp Lemonnier, Djibouti.

China's systematic targeting of foreign IP began at the outset of its modernization under Deng Xiaoping in 1978, when it implemented the Four Modernizations (agriculture, industry, science and technology, and defense). China elicited economic and technological development from the United Nations Development Programme and World Bank that same year, and within a decade it began sending millions of Chinese students abroad to study. Four Modernizations included two major efforts designed to establish science and technology industries within China. The first, the National High-Tech Research and Development Program, sought to emphasize science and technology at Chinese universities under the direction of a central government committee and the People's Liberation Army (PLA). The second, the Torch Program, sought to bring back thousands of Western-trained Chinese academics.[6] Together, these programs served as the government's early attempt to centralize science and technology research and development within the Communist Party of China (CCP) and the PLA in order to establish the early forms of the state-owned enterprises (SOE) that work hand-in-hand with the CCP, PLA, and foreign private enterprises to acquire technology.

As early as 1998, Chinese theft of U.S. IP had grown problematic enough to warrant the creation of the House Select Committee on U.S. National Security and Military/Commercial Concerns with the People's Republic of China. In 1999, the committee released a report that highlighted the efforts by China, as early as the 1970s, to target U.S. national labs to acquire sensitive technology.[7] The report also highlighted the primary means of acquisition at the time: illegally transferring technology from third countries, exploiting dual-use products, utilizing front companies to illegally acquire technology, using commercial enterprises as cover for technology acquisition, and acquiring interests in U.S. technology companies.[8] However, as China entered the twenty-first century, it looked toward a more aggressive means of sensitive technology acquisition.

Under President Hu Jintao, China launched the "National Medium- and Long-Term Plan for Development of Science and Technology (2006-2020)," or the "indigenous innovation" policy, in 2006. This policy implemented procurement rules that compelled foreign companies to hand over IP in exchange for access to Chinese markets.[9] Furthermore, the indigenous innovation increased domestic technological research and development funding while simultaneously pushing for "enhancing original innovation through co-innovation and re-innovation based on the assimilation of imported technologies."[10] Additional measures within the policy included state-run product testing geared toward studying foreign design and production

Dr. Nita Patel, director of antibody discovery and vaccine development, lifts a vial containing a potential COVID-19 vaccine 20 March 2020 at Novavax Labs in Gaithersburg, Maryland. The FBI has stated that the current Chinese government-directed effort to steal research related to development of a coronavirus vaccine as well as other industrial and military research through hacking has reached an unprecedentedly high level. (Photo by Andrew Caballero-Reynolds, Agence France-Presse)

methods, government procurement policies that blocked products not designed and produced in China to encourage foreign companies to disclose production methods within Chinese borders, and antimonopoly laws protecting SOEs that cooperated either under direct control or in close coordination with the CCP and the PLA.[11] Together, these policies promoted both legal and illegal acquisition of export-controlled IP from the United States and third countries as a quid pro quo for conducting business within mainland China.

A Shift in Chinese Policy: Xi Jinping's Thoughts on Socialism with Chinese Characteristics for a New Era

In his address to the CCP's 19th National Congress on 18 October 2017, Xi outlined his plan for China to become "a global leader in terms of composite national strength and international influence" by 2050, surpassing the United States and the West as the dominant world power both economically and militarily.[12] This tone is in stark contrast to Deng's "24-Character Strategy" of the 1990s, which stated "observe calmly; secure our position; cope with affairs calmly; hide our

capacities and bide our time; be good at maintaining a low profile; and never claim leadership."[13] While China's overall goal to rise to prominence on the global stage has not changed from Deng's time to Xi's, the tone and aggressiveness at which economic, technological, and military goals are pursued have changed drastically.

Changes in policy and national law complemented this shift in tone beginning in 2016 with its Cybersecurity Law. Among numerous other changes and restrictions, this law mandates that all business firms that produce "important data during operations within the mainland territory of the People's Republic of China, shall store it within mainland China."[14] If the data is required to be transferred out of China for

business purposes, it must be examined and approved by Chinese authorities prior to release, opening the potential for widespread collection and theft of private data among companies operating in China.[15]

Additionally, China released the National Intelligence Law in 2017, which established an unprecedented level of cooperation between state agencies (such as the Ministry of State Security [MSS] and the PLA), private organizations, and people. Article 7 of the law opens private cooperation with state security, stating, "any organization or citizen cooperate with the state intelligence work in accordance with the law, and keep the secrets of the national intelligence work known to the public. The State protects individuals and organizations that support, assist and cooperate with national intelligence work."[16] Article 12 strikes a similar cooperative tone between state intelligence collection and private enterprise, stating, "the state intelligence work organization may, in accordance with relevant state regulations, establish cooperative relations with relevant individuals and organizations and entrust relevant work."[17]

The shift in tone under Xi marks a transformation in an increasingly belligerent Chinese foreign policy economically, technologically, and militarily that has

WANTED BY THE FBI

YANQING YE

Acting as an Agent of a Foreign Government; Visa Fraud; Making False Statements; Conspiracy

DESCRIPTION

Date(s) of Birth Used: July 22, 1990	**Place of Birth:** Longhai, Fujian, China
Hair: Dark Brown	**Eyes:** Brown
Height: Approximately 5'4"	**Weight:** Approximately 110 pounds
Sex: Female	**Race:** Asian
Nationality: Chinese	**Languages:** English, Chinese

REMARKS

Ye is believed to be in China.

CAUTION

Yanqing Ye is a Lieutenant in the People's Liberation Army (PLA), the armed forces of the People's Republic of China, and a member of the Chinese Communist Party (CCP). Ye studied at the National University of Defense Technology (NUDT), a top military academy directed by the CCP in China. It is alleged that, on her J-1 visa application, Ye falsely identified herself as a "student" and lied about her ongoing military service at the NUDT. During Ye's time in the United States on her J-1 visa, she maintained close contact with her supervisor at the NUDT and other colleagues. While studying at Boston University's Department of Physics, Chemistry and Biomedical Engineering from October of 2017 to April of 2019, Ye allegedly continued to work as a PLA Lieutenant completing numerous assignments from PLA officers such as conducting research, assessing United States military websites, and sending United States documents and information to China.

On January 28, 2020, a federal arrest warrant was issued for Ye in the United States District Court for the District of Massachusetts, Boston, Massachusetts, after she was charged with acting as an agent of a foreign government, visa fraud, making false statements, and conspiracy.

If you have any information concerning this person, please contact your local FBI office or the nearest American Embassy or Consulate.

Field Office: Boston

Screenshot of an FBI wanted advisory for a suspected Chinese agent posted in 2020.

reflected the increased IP theft of U.S. technologies. Theft of IP directly complements the PLA's goal to modernize into a global power by the middle of the twenty-first century. The Information Office of the State Council outlined the future goals for the PLA in China's new global role in a 2015 white paper titled "China's Military Strategy." The white paper stated the PLA will "accelerate the modernization of national defense and armed forces … for achieving the national strategic goal of the 'two centenaries' and for realizing the Chinese Dream of achieving the great rejuvenation of the Chinese nation."[18]

Concurrent to military innovation, the Ministry of Industry and Information Technology (MIIT), under the leadership of Premier Li Keqiang, announced its "Made in China 2025" campaign in 2015. Made in China 2025 placed emphasis on emerging technology development, domestic innovation, and a shift from quantity-based production to quality-based produc-

> Chinese indigenous science and technology are not assessed to be advanced enough to independently compete with the U.S. and Western defense industrial base.

tion to enable China to become the leading innovative global manufacturer by 2049.[19] The overarching goal is to diminish Chinese reliance on foreign nations for advanced technology and quality goods by producing 70 percent of high-technology materials domestically by 2025.[20] According to a 2018 White House Office of Trade and Manufacturing Policy, Chinese foreign technology investment has been in line with those outlined in Made in China 2025.[21]

While experts argue Chinese SOE defense industries are attempting indigenous innovation and production, China still continues to struggle with critical technology development.[22] PLA modernization, therefore, still requires acquisition of sensitive technology and research and development, which is far more difficult to acquire through legal trade laws under the "indigenous innovation" program than other commercial technologies. Therefore, the CCP and the PLA rely heavily on illegal IP theft to acquire all or portions of critical technology to reverse engineer for domestically produced weapons.

Methods of Chinese IP Theft: Steal the Firewood from Under the Pot

The Thirty-Six Stratagems, a collection of proverbs believed to be from the Three Kingdoms Period of China, outlines a strategy for defeating a superior enemy: "Steal the firewood from under the pot."[23] This proverb outlines the indirect approach of removing the enemy's source of strength—in this case, the technological superiority of the U.S. and Western militaries. This method was summarized in the 2013 revision of *The*

Science of Military Strategy, published by the Academy of Military Sciences of the PLA, which stated, "After the outbreak of the Gulf War, the Party Central Committee and the Central Military Commission foresaw that the war situation caused great changes had [*sic*] taken place, and the military's strategic policy of active defense has been adjusted in a timely manner, increasing the use of high technology."[24] The authors continue by outlining the future need for technological parity with or superiority over the West, stating, "The development of science and technology has opened the way forward for the evolution of the form of war."[25]

Under Hu in 2004 and currently under Xi, and highlighted in *The Science of Military Strategy*, the PLA has emphasized efforts on matching the West in high military technology.[26] However, as stated before, Chinese indigenous science and technology are not assessed to be advanced enough to independently compete with the U.S. and Western defense industrial base (DIB), necessitating the theft of current and developing technologies. To achieve this, China utilizes several means, both legal and illegal, for undermining U.S. and Western military technology, research and development, and DIB production methods. The *National Security Strategy* outlines the basic methods China uses to steal U.S. IP: "Rivals have used sophisticated means to weaken our businesses and our economy as facets of cyber-enabled economic warfare and other malicious activities. In addition to these illegal means, some actors use largely legitimate, legal transfers and relationships to gain access to fields, experts, and trusted foundries."[27] The four methods of Chinese IP theft are open source, commercial, academia, and cyber-enabled.

Method 1. Open Source

According to James Mulvenon, open-source collection and databasing of publicly available information is the key resource of science and technology

innovation, stating, "Innovation in China is driven by foreign developments, tracked through open sources."[28] Like all Chinese bureaucratic apparatuses, open-source collection structure is complex and redundant. Organizations such as the Institute of Scientific and Technical Information of China operate under the guise of innocuous databasing and cataloging but target publicly facing science and technology technical documentation for reverse engineering and domestic production, publicly available information on research organizations and their employees for targeting purposes by state intelligence, and incorrectly declassified or mistakenly released classified information.[29] While the system is run similarly to a library-based catalog, it is directed and run by Chinese intelligence experts working at the behest of the party, serving as a shortcut for Chinese industry to develop research and technology, and is cataloged and disseminated in coordination with either private or SOE developers and manufacturers.[30]

The open-source program has, as of 2013, extracted and cataloged over 4.7 billion titles and abstracts, 644 million full-text documents, 1.2 million conference papers, 1.8 million foreign science and technology reports, and 9.8 million microfilmed products.[31] This vast collection of nonclassified, unclassified, and improperly classified public and private information reduces cost, time, and risk to China's military and civil development. The open-source program has been so successful that former Institute of Scientific and Technical Information of China director He Defang boasted that due to open-source collection, "China's researchers reduced their costs by 40-50% and their time by 60-70%."[32]

The implications of such a thorough and targeted collection of open-source information for the Army and DOD are profound. Public accountability and transparency in the United States and Western countries can be used to target military technology development and developers. For example, government contract awards posted almost daily on the DOD "Contracts" news page offer information on technology being developed, costs, contractors, subcontractors, contract lengths, locations, branches served, etc.[33] Additionally, contract awardee websites often provide information on organizational structure, personnel, locations of facilities, and nonclassified or unclassified information on research and development. This information, along with other information from countless other publicly facing government and privately owned websites, provide China with a clear picture of U.S. research and development priorities, long-term intentions, strategies, priorities for the force, and opportunities for collection via other means outlined below.

Method 2. Commercial

While China has moved from a Maoist communist nation during the Nixon administration to a mixed-market economy today, the distinction between private, public, and academia is far less profound than in the United States. Today, SOEs either directly or indirectly owned or funded by the CCP or the PLA constitute an estimated 23 to 28 percent of China's gross domestic product (GDP).[34] Some SOEs and private companies within China work either at the behest or on behalf of the CCP or PLA, either directly or indirectly, to target and acquire U.S. technology for import, reverse engineering, and domestic production that supports CCP or PLA research and development goals.[35] Subcontracts awarded to Chinese companies by prime contractors to U.S. government contracts offer insight into production methods and the capacity and capability to compile and reverse engineer technology to domestically produce high-end technology.

SOEs are linked to U.S. and other Western companies by the China Association for Science and Technology through national technology transfer centers. These centers establish cooperative relationships with American corporations and academic institutes to encourage technology transfers.[36] The CCP and the PLA fund SOEs to employ U.S. and Western science and technology experts, who account for about half of the 440,000 foreigners who currently work in China.[37]

Next page: A variety of Chinese fixed-wing and rotary-wing military aircraft appear uncannily similar in design to those developed by the United States and other countries, including many made by Russia. For example, the Chinese Z-10 helicopter (*above*), which closely resembles the U.S. AH-64 Apache helicopter (*below*) is thought to have been developed from information obtained by a combination of espionage, computer hacking, and transfer of classified trade-secret information through misleading deals with legitimate companies working under the presumption of cooperation with China to develop a "dual use" helicopter. (Photos courtesy of Wikipedia)

Other state-run programs such as 863 Program, funded and run by the Ministry of Science and Technology to develop and acquire high-level technologies, have been implicated in committing espionage, such as the 2011 conviction of Kexue Huang for stealing trade secrets from AgroSciences and Cargill Inc.[38]

As outlined in Made in China 2025, China has shifted industrial focus from cheap, low-quality goods to high quality, technologically driven innovation.[39] To accomplish this, China has shifted government-backed funding from acquiring "core natural resources" prior to the release of the policy to "acquire high-technology areas of the U.S. economy in particular."[40] China utilizes SOEs, private Chinese companies with ties to the Chinese government, and state-backed investment funds to conduct mergers, acquisitions, investment, and venture funding to acquire U.S. high technology.[41] These practices consist of legal, illicit, or sometimes illegal means to solicit, coerce, or outright steal information and technology from U.S. and other nations' private companies. According to an FBI report on China-related prosecutions since 2018, "about 80 percent of all economic espionage prosecutions brought by the U.S. Department of Justice (DOJ) allege conduct that would benefit the Chinese state, and there is at least some nexus to China is around 60 percent of all trade secret theft cases."[42]

Additionally, Chinese companies, to include SOEs, have inserted themselves into U.S. military supply chains, typically at low-level subcontracts, and produced and sold illegal and substandard counterfeit parts to the United States.[43] Recent examples include component parts to the C-130J transport aircraft, the C-27J transport aircraft, the SH-60B multimission Navy helicopter, the Terminal High Altitude Area Defense (THAAD) missile defense system, and the P-8A Poseidon multimission maritime aircraft.[44] As the U.S. military increasingly relies on commercial off-the-shelf information technology equipment, the risk of Chinese companies producing compromised components is compounded, as evidenced

Seal of the Thousand Talents Program

by a 2018 Bloomberg report highlighting Chinese efforts to utilize commercial microchips to infiltrate and establish a backdoor into information technology equipment sold to government agencies.[45] Concerns over this issue are so high that in 2018, U.S. President Donald Trump signed a bill banning Huawei and ZTE (major providers of cellular phones to military service members overseas) technology in government contracts.[46]

Method 3. Academia

In addition to open-source and commercial IP theft, China has employed academics to commit IP theft since the outset of Deng's "four modernizations."[47] Starting in 1978 under Deng, China shifted to a more pragmatic approach to modernizing China by sending increasing numbers of students and scientists abroad to learn from Western nations (something that was deemed dangerous under Mao after the Cultural Revolution) as well as attracting foreign talent into China.[48] China's approach to acquiring IP through academia has two distinct approaches: through open and established government-sponsored organizations and through overt and covert use of student populations and professors abroad to illegally acquire IP. Both of these methods effectually turn students and professors into state-sponsored collectors of IP at the direction of the CCP or the PLA.

In the wake of 1989 Democracy Movement, culminating in the Tiananmen Square Massacre, the CCP sought to target domestic and overseas Chinese students to ensure party loyalty. To achieve this, the CCP expanded the existing Chinese Students and Scholarship Associations (CSSAs) abroad to ensure overseas student loyalty to CCP ideology. Additionally, in 2004, the CCP founded the first Confucius Institute, whose stated purpose is to "teach Chinese language, culture, and history at the primary, secondary, and university level around the world."[49] Currently, China operates over 140 CSSAs and 110 Confucius Institutes, all under the direction of the CCP United Front Work Department.[50] According to the 2018 U.S.-China Economic and Security Review

Harvard University Professor Charles Lieber is surrounded by reporters 30 January 2020 as he leaves the John Joseph Moakley U.S. Courthouse in Boston. Lieber, chair of the Department of Chemistry and Chemical Biology, was charged with lying to officials about his involvement with a Chinese government-run recruitment program through which he received tens of thousands of dollars. (Photo by Charles Krupa, Associated Press)

Commission, in reality, CSSAs "receive guidance from the CCP through Chinese embassies and consulates … and are active in carrying out overseas Chinese work consistent with Beijing's United Front strategy."[51] Likewise, Confucius Institutes have been accused of "improper influence over teaching and research, industrial and military espionage, surveillance of Chinese abroad and undermining Taiwanese influence as part of the reunification plan."[52] Both organizations serve to ensure Chinese student populations overseas are acting in accordance with CCP and PLA guidance and wishes.

The Thousand Talents Program, established in 2008 to both recruit non-Chinese scientists and entice foreign-educated Chinese individuals to return to the mainland, has come under open criticism by U.S. agencies for committing IP theft. In 2018, the assistant director of the Counterintelligence Division for the Federal Bureau of Investigation (FBI) stated that the Thousand Talents Program and other similar government-sponsored programs "offer competitive salaries, state-of-the-art research facilities, and honorific titles, luring both Chinese overseas talent and foreign experts alike to bring their knowledge

and experience to China, even if that means stealing proprietary information or violating export controls to do so."[53] In January 2020, Charles Lieber, the chair of Harvard University's Chemistry and Chemical Biology Department, was indicted for accepting payment and living expenses from the Wuhan University of Technology after accepting a research grant from the DOD and falsifying statements regarding his participation in the Thousand Talents Program.[54] The Thousand Talents Program and other similar financially enticing programs allow China to capitalize on foreign education systems and technology development by cheaply, and often illegally, enticing scientists and researchers working on sensitive and controlled technologies to transfer foreign IP to China.

Yu Xue exits the federal courthouse 31 August 2018 in Philadelphia. Xue, a cancer researcher, pleaded guilty to conspiring to steal bio-pharmaceutical trade secrets from GlaxoSmithKline in what prosecutors said was a scheme to set up companies in China to market them. (Photo by Matt Rourke, Associated Press)

In addition to government-sponsored organizations, China has been accused of viewing all Chinese students as potential conduits for foreign technology transfer. Chinese organizations have openly advocated "expanding the role of Chinese scientists living overseas in conducting research on behalf of Chinese research institutes and facilitating technology transfer."[55] Returning overseas Chinese students are often debriefed by government officials on what technologies, research, and scientific personnel they had access to as part of general intelligence collection and to assess the potential to co-opt or recruit students. Additionally, China's MSS has been accused of approaching Chinese students and scientists who are preparing to travel overseas to task them with acquiring information or "performing other operational activity" while abroad, such as establishing covert relationships with academic personnel.[56] The use of overseas Chinese students and professors as collectors of IP poses a major challenge to the openness and transparency of academic institutions outside of China, which must contend with balancing protecting IP and promoting scientific research sharing and collaboration.

Method 4. Cyber Enabled

China uses cyber means to conduct IP theft, both directly through network intrusions and data theft or indirectly through other means such as open-source collection or in support of traditional espionage.[57] Cyber ties the previously discussed methods together because it provides a cheap and easy medium to conduct IP theft in a low-risk environment with relatively little repercussion for actions that would otherwise have major implications such as economic sanctions, arrests, and expulsion of state actors (known persona non grata in international diplomacy) if conducted on foreign soil.

IP theft via network intrusions and extraction of data from the DIB, subcontractors, academia, and government networks offers a cheap, reliable, and low-risk means of acquiring both developing and existing

sensitive military technology for reverse engineering and domestic production in China. According to the 2019 DOD annual report to Congress, "China uses its cyber capabilities to not only support intelligence collection … but also to exfiltrate sensitive information from the DIB to gain military advantage. The information targeted can benefit China's defense high-technology industry [and] support China's military modernization."[58] The report goes on to highlight the severity of the issue, stating, "These cyber-enabled campaigns threaten to erode U.S. military advantages and imperil the infrastructure and prosperity on which those advantages rely."[59]

According to a 2013 report by Verizon, 96 percent of all cyber espionage data breach cases were attributed to threat actors in China.[60] China utilizes state, business, and private cyber actors to compromise and steal $180 billion to $540 billion of IP and trade secrets annually, or 1 to 3 percent of the U.S. GDP.[61] Gen. Keith Alexander, then director of the National Security Agency and then commander of U.S. Cyber Command, stated in 2012, "In my opinion, it's [cyber-enabled intellectual property theft] the greatest transfer of wealth in history."[62]

In 2014, the U.S. Department of Justice charged five PLA officers from Unit 61398, 3PLA, with, among other charges, "economic espionage" and "accessing (or attempting to access) a protected computer without authorization to obtain information for the purpose of commercial advantage and private financial gain."[63] This occasion became an historic first instance of state foreign actors charged with infiltration of U.S. commercial targets via cyber espionage.[64] In an attempt to embarrass and deter future actions by Chinese actors, the grand jury charges represented an open and public acknowledgment by the U.S. government of Chinese state actors actively and aggressively targeting critical military technology. Despite the charges, however, the ramifications and retaliation by the U.S. government remained targeted on specific individuals and highlighted the low-risk and high-reward nature of cyber espionage.

The apex of Chinese cyber activity volume was highlighted in 2013, as FireEye, a private cybersecurity firm, identified a marked decrease in Chinese cyber espionage incidents in the following years. While this was due in large part to the 2014 grand jury warrant and the 2015 U.S.-China Cyber Agreement in principle, FireEye also attributed the decrease to a professionalization and reorganization of Chinese cyber

actors.[65] According to Elsa Kania and John Costello, the reduction in quantity of attacks coincides with the reorganization of Chinese cyber assets under the PLA Strategic Support Force, which centralized PLA cyber as a separate service branch under a single command and shifted focus toward a combat-oriented cyber focus. Additionally, the MSS appears to have taken the lead on commercial cyber espionage and directing nonstate actors in focused attacks on U.S. commercial interests.[66] According to a 2016 annual report to Congress, Chinese cyber activity at large has moved away from large-scale amateurish attacks such as those conducted under the PLA prior to 2014 to a more centralized and professionalized force, implying Chinese cyber espionage will be more difficult to detect in the future as the MSS and other Chinese intelligence agencies, instead of the PLA, target vulnerable commercial networks.[67] Rather than the decline in Chinese cyber espionage incidents representing a success in U.S. policy, it actually highlights a potential increase in Chinese cyber actor capabilities and a decrease in U.S. ability to detect threats.

In addition to direct network intrusion and IP theft, China utilizes information networks to target individuals online for carrying out more traditional means of IP theft mentioned previously. Chinese state intelligence actors used LinkedIn to target and clandestinely recruit a former Central Intelligence Agency and Defense Intelligence Agency employee, and the U.S. Department of Justice charged a Chinese intelligence agent in October 2018 for recruiting a General Electric Aviation engineer with whom they made initial contact on LinkedIn.[68] Profiles containing work history, degrees, and areas of expertise offer lucrative targeting information for Chinese agents seeking to acquire IP from specific technology sectors.

Cyber-enabled IP theft, like all other methods of Chinese IP theft, covers a wide spectrum of means and methods and overlaps with the aforementioned traditional methods of IP theft. Cyber-enabled IP theft stands out among other methods due to the volume and ease with which it can be carried out. However, it is worth noting that raw technical data carries little value without the methods, means, and technical expertise required to reverse engineer and domestically produce technology within China, which is achieved primarily through commercial and academic IP theft.

Mitigating Chinese IP Theft: Stemming the Tide

While internal policies and procedures within the Army and DOD may mitigate some IP theft, IP theft covers a wide spectrum across government, private, and academia, and thus the issue cannot be solved by the Army or the DOD alone. To mitigate and prevent IP

and the National Industrial Security Program, which established policy via DOD 5220.22-M, a DOD operating manual that outlines procedures for private companies working on classified government contracts.[69] By leveraging committees like the Committee on Foreign Investment in the United States, the DOD could address concerns over mergers or acquisitions

> "China utilizes state, business, and private cyber actors to compromise and steal $180 billion to $540 billion of intellectual property and trade secrets annually, or 1 to 3 percent of the U.S. gross domestic product."

theft, the DOD must strengthen existing government, private, and academic partnerships, committees, and policies. First, existing government policies, organizations, and authorities can be leveraged to combat IP theft of military technology. However, the Army and DOD must leverage the private sector and amend its contracting policies and regulations to mitigate theft by enforcing stricter information protection standards on contractors and subcontractors. Additionally, the Army and DOD must partner with academic institutes conducting research on critical technology to protect both classified and nonclassified developing or emerging technologies.

Within the federal government, a comprehensive approach must be analyzed to prioritize critical high technologies. A technology that has a shorter lifecycle before becoming obsolete is less critical to defend than a technology that will remain relevant for decades with no foreseeable replacement. Furthermore, the DOD and other government agencies must ensure protection of technologies from "cradle-to-grave," a term used to describe protection of critical technologies from the time of their inception through their fielding, lifecycle, and eventual replacement by new technology. By only defending developing technologies, the DOD risks merely delaying eventual theft of technology and domestic production by adversaries.

Additionally, the DOD and federal government at large must leverage existing policies and organizations to strengthen protection of private sector IP. Two examples include the Committee on Foreign Investment in the United States, which can review foreign acquisitions and mergers of critical U.S. technology;

of high-technology contract or subcontract companies by Chinese companies with direct or indirect ties to the CCP or PLA. Existing policies such as DOD 5220.22-M, Federal Acquisition Regulation, and the Defense Federal Acquisition Regulation Supplement (DFARS) provide frameworks upon which to improve security practices by the private sector and strengthen regulation on subcontractor access to critical and developing technology.[70] By leveraging authorities from external agencies and departments such as the FBI, the Department of Treasury, or the Department of State, the Army and DOD impose regulatory, financial, or criminal action on noncompliant companies within the United States and exert international pressure through international regulatory bodies.

Currently, any university with a federal defense contract working on controlled unclassified information under DFARS 525.204.7012 must comply with National Institute of Standards and Technology (NIST) Special Publication 800-171, *Protecting Controlled Unclassified Information in Nonfederal Systems and Organizations,* to protect controlled unclassified information.[71] DFARS 252.204.7012 established regulatory compliance with NIST 800-171 standards for all contracts awarded after 1 October 2017. However, enforcement of DFARS 252.204.7012 primarily relies on contractor notification to the DOD chief information officer of any deficiencies in complying with NIST 800-171, not on inspections or regulatory checks by any enforcing body. Furthermore, subcontractors are only required to report deficiencies in complying with NIST 800-171

to the prime contractor and not to the federal government, risking that subcontractor compliance on controlled unclassified information is deficient.[72] This reliance on self-reporting by contractors and subcontractors promotes ignoring deficiencies in required federal regulatory guidance and puts companies and the DOD at risk of vulnerable critical technology of information systems. Amending federal regulatory guidance for universities, contractors, and subcontractors working on controlled unclassified information to permit federal regulatory inspections and checks on company compliance would protect against IP theft.

The 2019 addition to DFARS 252.204-7018, which prohibited contractor or subcontractor sales to the U.S. government of end items or components produced by Huawei and ZTE or any subsidiary thereof, established a precedent for enacting regulatory action against IP theft. Additionally, DFARS 252.204-7018 requires prime contractors to include the clause in "subcontracts for the acquisition of commercial items" to prevent prohibited sales of Huawei and ZTE equipment to contractors via subcontracts.[73] Utilizing similar actions against known CCP or PLA SOEs could serve as a deterrent against SOE willingness to engage in IP theft.

No one approach or method will counteract Chinese IP theft of critical military technology. However, by partnering with other federal and state agencies and departments, private companies, and universities, as well as enacting stricter regulatory guidance and enforcement tools, the Army and DOD would more effectively prevent IP theft and retaliate against thefts after they occur. Through a public-private approach, it may be possible to deter IP theft through a combination of prevention, incentives, and retaliation, which make illegal IP theft financially unsustainable.

Conclusion

The implications of Chinese IP theft are readily apparent in the CCP and the PLA's actions, official statements, and doctrine. While the methods and techniques used to conduct IP theft are not unique to the CCP, the scope and frequency of the theft are. Despite the 2015 Agreement in Principle and subsequent retaliatory actions by the U.S. federal government, China has shown little propensity for stemming its IP theft of high technology. IP theft combined with increased military spending by China threatens to close the gap with U.S. military technological superiority and challenge American military dominance. While China may not be able to produce superior quality high-technology weapons and systems for many decades, the threat of parity in even few military high technology areas threatens overall U.S. superiority on the battlefield and leads to a diminished status on the world stage.

The challenges presented by Chinese IP theft are numerous and may require the Army and DOD to step outside their normal operating environment to counter the threat and work with agencies, departments, and partners that are not frequently associated with military action. While isolated incidents of IP theft may appear inconsequential in the present, the consequences of not taking action potentially threaten future lives on the battlefield and U.S. military dominance. Only through proactively preventing Chinese IP theft can the Army and DOD protect their technological dominance and the future of U.S. military superiority. ∎

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Venezuela in Light of Anti-American Parties and Affiliations in Latin America

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As the economy in Venezuela collapsed over the course of the last several years, media coverage of the situation increasingly focused on the steep decline in living standards of the general population, the resulting misery, and the emergence of mass refugee flows to neighboring countries. The ruling socialist regime in Caracas (hereinafter, Bolivarian) was reasonably blamed for Venezuela's tragedy, leading some more assertive opinionmakers to call for senior Venezuelan military leaders to abandon obedience to Nicolás Maduro as their chief executive and instead align their loyalty to the regime's political opposition, which had gained a compelling share of formal internal and external recognition.[1] Although there had been localized mutinies, the military services in general remained notably unresponsive. The central reason for this unresponsiveness is that the senior military leadership is part of the same corrupt hierarchy that caused the catastrophe. Humanitarian concerns among foreign political leaders, especially those of South American countries, resulted in diplomatic measures being taken against the Maduro regime. The hope was apparently to force a regime change by isolating the Maduro administration diplomatically, by strangling its finances, and therewith, by instigating an internal coup of some kind. However, to the general and unwarranted mystification of the media and pundits alike, Maduro showed sufficient political resilience to maintain his position within the Bolivarian hierarchy.

Adding to the complexity and danger of the situation was the direct presence of Russian military forces, with small military contingents deployed to Venezuela. Russian presence operations have also included the periodic visitation of nuclear-weapons-capable aircraft and large warships; the overall intention was evidently to undergird the Bolivarian dictatorship and its resolve—an intention which, in retrospect, was realized.

The prevailing sense of confusion in the media emanated in part from a convergence of (1) inadequate consideration of Venezuela's place in the greater circum-Caribbean context, (2) wishful thinking regarding the actual vulnerabilities of the Maduro dictatorship, and (3) misunderstanding of the Bolivarian political and economic infrastructures. Bolivarian rule, if not Maduro's role in it, was and remains all but impervious to a military coup as such. The military senior leadership is broadly co-opted into the greater regime's criminal

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Venezuela's disputed President Nicolás Maduro carries the army commander's baton 24 June 2017 as he arrives for Army Day celebrations at Fuerte Tiuna in Caracas, Venezuela. Maduro joined the army celebration while thousands marched in the streets of the capital to demand restraint from government security forces after more than seventy people had been killed during almost ninety days of protests seeking his removal. (Photo by Fernando Llano, Associated Press)

enterprise, if not its ideology, guided by a large Cuban presence funded in turn by the Russians, Chinese, Turks, Iranians, and others. This year, the U.S. government announced arrest warrants and accompanying bounties for the apprehension and delivery of Maduro, Diosdado, Cabello and other senior regime leaders.[2] Even if successful, how such arrests might change the presence and grip of Cuban Communist Party (PCC) elements over the reins of control in Venezuela is unclear.

The notion of a military coup in Venezuela, and for that matter, the notion of changing out Maduro at the top, has had far less effective meaning than has been accorded to it, not just because there was no incentive for a coup, but because the replacement of Maduro and his immediate cronies by any of Venezuela's current senior military leaders would likely be no more than self-coup theatrics by the same Bolivarian organizational hierarchy. Venezuelan

army generals remain materially secure because of lucrative relationships with illicit drug and other transnational criminal enterprises. They have also been allowed to arrange for safe places for their families to live—contingent, of course, on their loyalties. Moreover, their position is enhanced by their control of weapons, of which the opposition has none. However, that the loyalties of senior Bolivarian military leaders is maintained by material benefits does constitute a vulnerability. One might assume that some of these leaders could be swayed to betray their Bolivarian masters if offered an alternative package of positive material benefits, but such an offer only addresses one half of an "offer he can't refuse."

It is particularly disconcerting that even if the opposition were somehow to successfully oust the current Bolivarian regime as led by Maduro, maybe 15 percent of a population of about twenty-seven

Figure. Interrelationships among Members of the Anti-American Network in Latin America

Graphic elements (labels within figure):

ALBA
Bolivarian Alliance
for the Peoples of
Our America

PCC
Cuba
Communist Party of Cuba

PSUV
Venezuela
United Socialist Party of Venezuela

FMLN
El Salvadoran
Farabundo Martí
National Liberation Front

PLD
Dominican
Republic
Dominican Liberation Party

MAS IPSP
MOVIMIENTO
AL SOCIALISMO
Bolivian
Movement for Socialism—Political
Instrument for the Sovereignty
of the Peoples

Uruguayan
Broad Front

ULP
St. Vincent &
the Grenadines
Unity Labour Party

FSLN
Nicaragua
Sandinista National
Liberation Front

coppppal
Conferencia Permanente de Partidos
Políticos de América Latina y el Caribe
Permanent Conference
of Political Parties of Latin America
and the Caribbean

morena
La esperanza de México
Mexico
National Regeneration
Movement

REVOLUCIONARIO
11
DEMOCRÁTICO
Panamanian
Democratic
Revolutionary Party

PT
Brazilian
Workers' Party

Foro de
São Paulo
São Paulo Forum

(Graphic by author)

million might remain loyal or obedient to Bolivarian party leadership. Accordingly, the aftermath of a successful overthrow of the dictatorship could present a residual and persistent armed struggle. While an improvement, a simple overthrow would not preclude the unfortunate continuation of the regional irregular war that has been going on for decades, frustrating efforts in neighboring countries Colombia and Brazil to resolve their own security issues. Colombia's fifty-year war against the Revolutionary Armed Forces of Colombia (*Fuerzas Armadas Revolucionarias de Colombia-Ejército del Pueblo,* or FARC-EP, hereinafter referred to as FARC) should serve to dampen hopes of some complete defeat of leftist military power or the attainment of complete civil rest. The FARC war, moreover, was never confined to Colombia. The current Venezuela problem, in other words, is in no way confined to Venezuela, nor will it be. It is also not going to be satisfactorily addressed without admitting the full geographic scope of the war, clearly naming those organizational entities that are culpable for its prosecution and bringing decisive coercive pressure to bear directly against them.

In an effort to help the reader gain a better understanding of the intertwined forces negatively affecting Venezuela and the entire region, I identify in this article the malign network of diverse organizations that exists in Latin America today. I also provide a series of observations that illuminate how the organizations in that network relate to each other. This information is intended to unravel some unnecessary complications in the analysis of dangers and prospects in northern South America and the Caribbean. Hopefully, it will inform readers' perspectives as they

consider various calls to action, whether internal or external.

The Anti-American Network in Latin America

To better understand the threat that the situation in Venezuela implies for the entire hemisphere, one need only become familiar with the ideological signaling and collaborative habits of an armful of organizations whose leaders appear to be principally responsible for Venezuelan suffering. There exists in Latin America a sophisticated network of interrelated political parties and international organizations (depicted in the figure on page 112) that bear watching because they are actively anti-American, antiliberty, and generally destructive.[3]

It would be useful and prudent for security analysts and policy makers to be cognizant of these organizations and their interrelationships, intentions, and capacities. The network's components are woven by ideology, material objectives, and overlapping leadership and representation. So, to a degree, they are better analyzed as a regional composite threat rather than as individual organizations. To that end, I offer an overview of the structure of those political parties and international organizations most relevant to the current goings-on in northern South America and the Caribbean. I highlight a network of revolutionary-left parties and conclude with a working hypothesis regarding the network's conspiratorial prospects. Again, observing political parties and their interrelationships can be as revealing, if not more, for the purposes of geopolitical prediction and planning, than assessing the region using national states or countries as the standard units of action.

First tier. The Cuban Communist Party (*Partido Comunista de Cuba*, or PCC) with its subordinate United Socialist Party of Venezuela (*Partido*

Venezuela's disputed President Nicolás Maduro (*left*) joins the president of the Venezuelan National Constituent Assembly, Diosdado Cabello, to celebrate the two hundredth chapter of the "Con el Mazo Dando" program 12 April 2018 on set in Caracas, Venezuela. Cabello is host of the program that is broadcast on the Venezuelan state channel, Venezolana de Televisión. (Photo courtesy of the Bolivarian Government of Venezuela)

Former senior Venezuelan general Diosdado Cabello is widely reported to be the current head of the Cartel of the Suns, a criminal drug-trafficking syndicate made up of senior Venezuelan generals who work closely with the Colombian drug cartels that reputedly have insinuated themselves into all branches of the Venezuelan armed forces and National Guard. The Cartel of the Suns reportedly originated in the 1990s among junior military officers working at the Colombian-Venezuela border who became involved in drug trafficking by initially taking bribes and assisting drug cartels with smuggling operations, and then expanding their scope of operations as they moved up in rank. Today, this syndicate ostensibly has on the payroll virtually all two thousand senior leaders of the military together with many former military leaders and civilian officials now working in civilian government administration. One asserted result of the military's deep involvement in extremely lucrative drug-trafficking relationships is that there is little incentive for senior military leaders to abandon the current status quo in support of a change in government leadership. As a result, Cabello has emerged to be one of the most powerful political figures in Venezuela, perhaps having more actual power over the armed forces than Venezuela's disputed President Nicolás Maduro himself. As a result, some observers assert that Cabello and the Cartel of the Suns are so deeply entrenched in Venezuela's civil administration that they will remain in place even if Maduro is forced to leave office. For detailed press reports on the reputed Venezuelan kleptocracy, visit https://www.insightcrime.org/investigations/venezuela-mafia-state/ and https://www.vice.com/en_us/article/yw8e4y/venezuelas-government-is-so-corrupt-it-basically-has-its-own-cartel.

Workers' Party President Gleisi Hoffmann (*center right*) attends a demonstration 7 April 2019—the anniversary of the incarceration of former Brazilian President Luiz Inácio Lula da Silva—outside the jail where Lula was being held in Curitiba, Brazil. While Lula was serving a twelve-year sentence for corruption and money laundering, he and his party maintained his innocence and claimed persecution by political enemies to prevent him from running again for president. He was released from prison in November 2019 based on a procedural ruling after being incarcerated for eighteen months. (Photo by Denis Ferreira Netto, Associated Press)

Socialista Unido de Venezuela, or PSUV) are at the apex of the regional anti-American network collective.[4] Also, although not currently in control of the reins of its country's central government, the Brazilian Workers' Party (*Partido dos Trabalhadores,* or PT) is a third leading organization within the whole network.[5]

Second tier. After the PCC, PSUV, and PT, the second tier of country-headquartered parties are the Sandinista National Liberation Front (*Frente Sandinista de Liberación Nacional,* or FSLN) in Nicaragua and the Dominican Liberation Party (*Partido de Liberación Dominicana,* or PLD) in the Dominican Republic. These two organizations wield enhanced influence within the composite in that they control their respective country-level governments.[6] They both positively associate themselves with the PCC and PSUV. The PLD (along with other leftist parties of several smaller island

countries in the Antilles) may be of note at this time, given the strategic geographic location of Hispaniola and the rest of the Antilles in terms of international smuggling routes.[7] The PLD, however, seems to be in a more tenuous geopolitical position than the FSLN or the Bolivian Movement to Socialism (*Movimiento al Socialismo,* or MAS) as to public support of the PSUV.[8] Until recently, the MAS party in Bolivia fit into the collective in a similar way as the Dominican PLD and the Sandinistas. That party, however, incurred a setback in late 2019 due to overreach in electoral fraud. Bolivian President Evo Morales was ousted from office and forced into exile in late 2019 on the strength of a police uprising backed by military inaction. With Morales went a number of senior administrative leaders from the MAS. However, the ouster did not affect the legislature, which that party still dominates.[9] Meanwhile,

ex-President Morales has been heartily supported by the network of leftist nongovernmental organizations, chief among them the Puebla Group.

Key political party umbrella organizations. There are numerous other expressly anti-American parties of peripheral significance, with the extended set conveniently outlined in the membership rolls of two major umbrella organizations, the Forum of São Paulo (*Foro de São Paulo*, or FSP) and the Permanent Conference of Political Parties of Latin America and the Caribbean (*Conferencia Permanente de Partidos Políticos de América Latina y el Caribe*, or COPPPAL).[10]

A newer, third entity is the aforementioned Puebla Group. Its name comes from the first publicized meeting in Puebla, Mexico, in July 2019.[11] The Puebla Group appears to be a coordinator, a protective society and holding pen for the region's most senior leftist leaders, including and especially ousted personalities such as Morales and Brazilian ex-president Lula da Silva. As such, it has instantaneous influence.

Key transnational and international facilitating organizations. Finally, several regional international organizations are prominent within the collective. These include the Union of South American Nations (*Unión de Naciones Suramericanas*, or UNASUR), the Community of Latin American and Caribbean States (*Comunidad de Estados Latinoamericanos y Caribeños*, or CELAC) and the Bolivarian Alliance for the Peoples of Our America (*Alianza Bolivariana para los Pueblos de Nuestra América*, or ALBA).[12]

Transnational Criminal Organizations

Additionally, parts of the party network are involved at various points and depths with international organized criminal organizations and activities of various types. Several, for instance, have been openly and mutually supportive of, and by, the FARC and the National Liberation Army (*Ejército de Liberación Nacional*, or ELN). Both the ELN and FARC have enjoyed increasing levels of impunity inside Venezuelan territory.[13] With regard to those groups specifically, in the past few years, the FARC has taken on a mixed character as a political party and an armed force. The FARC did not shed its revolutionary socialist orientation after having nominally signed an agreement to end its war with Colombia, nor did it shed its drug trafficking portfolio.

Meanwhile, the ELN has displaced the FARC as the preeminent Colombian guerrilla warfare structure. It uses Venezuela as a sanctuary territory, with its senior leadership commanding from Havana. In both cases, the FARC and the ELN are heavily involved in illegal drug trade, illegal mining activities, and other criminal activities.[14] Also worth noting is criminal implication of members of the PSUV, the Brazilian PT, and the Forum of São Paulo in the Odebrecht scandal, which is perhaps the largest international corruption enterprise in the history of the hemisphere.

Extraregional Governmental Support

The whole of this organizational fabric is difficult to visualize through the lens of the international country system, but we can reasonably presume the components will display certain behaviors. Among these behaviors is propagandistic and material cooperation with governments outside the hemisphere that are of security concern to the United States. Such outside nations prominently include the governments of Russia, China, Iran, and perhaps Turkey.[15]

Cuban Communist Party. The EcuRed website, which is evidently an official PCC Cuban government site billing itself as a "Project of the Constitution of the Republic of Cuba," lists Communism, anti-imperialism, Marxism-Leninism, and Martiism as the main planks of the party's political ideology, and it lists the FSP and COPPPAL as its main international affiliations.[16] According to an EcuRed essay, the Constitution of the Republic of Cuba defines the Cuban Communist Party as the "organized Martiist and Marxist-Leninist vanguard of the Cuban nation, the highest directive force of the Society and the State." The EcuRed website also hosts a page for the Nicaraguan FSLN.[17]

The PCC hosted the Forum of São Paulo's 2018 plenary meeting in Havana. A senior PCC central committee member opined,

> This is about left forces uniting without losing their identities, but on the basis of a political program. What is impossible is transforming society without the unity of left forces, and that they take power. At this time, there is nothing more solid than the FSP, in which existing problems can be discussed, as well as ways to build unity.[18]

Raúl Castro, who recently relinquished his position as President of Cuba, remains the PCC leader. Regarding the PCC's international affiliations, the web page of the International Meeting of Communist and Workers' Parties, as well as those of COPPPAL and the FSP, list the PCC as a member.[19] While addressing key positions in international policy, Raúl Castro said in 2016,

> Despite the fact that we have never encouraged other countries to abandon this organization, I must reiterate what was expressed in Brazil, some years ago now, paraphrasing José Martí, that before Cuba returns to the OAS [Organization of American States], "the ocean of the North will join the ocean of the South, and a serpent will be born from the egg of an eagle."
>
> It is imperative to continue moving forward with the consolidation of CELAC as a mechanism of genuinely Latin American and Caribbean joint political action, based on the concept of unity in diversity.[20]

United Socialist Party of Venezuela. The PSUV's official page references, and provides online, the *Libro Rojo* (Red Book), the founding document of the party, in which the party's ideological identifiers are listed. The lead item listed as a founding principle is "Anti-capitalist and Anti-imperialist."[21] The PSUV's webpage also features an article on the 2018 FSP Conference in Havana, noting that the conference called for solidarity in support of Venezuela, Nicaragua, and the people of Brazil. Interestingly, this call for solidarity was voiced by the prime minister of Saint Vincent and the Grenadines, Ralph Gonsalves, who spoke to the gathering.[22]

Brazilian Workers' Party. The PT official web page does not feature an assertion regarding its international affiliations or mention the Forum of São Paulo.[23] The current president of the party is Gleisi Hoffmann, but Luiz Inácio Lula da Silva and Dilma Rousseff are better known, both ex-presidents of the country. Rousseff was impeached and removed from office in 2016. The PT nevertheless ran her as a senate candidate from Minas Gerais state in the October elections, but she lost. Lula, meanwhile, was convicted in 2017 of corruption and is now serving a jail sentence. He too, was nevertheless leading in opinion polls as a PT candidate for the presidency. One of his disciples and a stand-in candidate, Fernando Haddad, then lost the general election to Jair Bolsonaro. Bolsonaro is considered anti-PT. Although the PT is now out of power, it can hardly be considered powerless. In early February 2019, the PT announced a new alliance of several of Brazil's far-left parties to oppose the new president.[24]

The Forum of São Paulo. The FSP was established in 1990 by Fidel Castro and Luiz Inácio Lula da Silva with the purpose of encouraging mutual support among the region's revolutionary leftist parties and building strategic solidarity in the face of the post-Soviet reality in which major support of indigenous socialist movements had stopped. In addition to the on again/off again governmental control exercised by parties noted in the previous paragraphs, there are several other FSP parties currently exercising the offices of the chief executive of their respective countries. These include the PAIS Alliance (*Alianza PAIS* [*Patria Altiva y Soberana*]) party in Ecuador, the Farabundo Martí National Liberation Front (*Frente Farabundo Martí para la Liberación Nacional,* or FMLN) in El Salvador, the Broad Front (*Frente Amplio,* or FA) in Uruguay, and the National Regeneration Movement (*Movimiento Regeneración Nacional,* or MORENA) in Mexico. Ecuadoran President Lenin Moreno appears currently to be distancing PAIS and his government from the Bolivarian block, apparently favoring improved relations with the new anti-Bolivarian administration in Colombia. The Salvadoran FMLN recently lost an election and will soon be out of power, while MORENA, a relatively new construction, has potential to greatly increase its profile within the overall network.

According to the FSP official website, Colombian parties in the FSP include the following:
(1) Patriotic March (*Marcha Patriótica*)
(2) Progressive Movement (*Movimiento Progresista*)
(3) Green Alliance Party (*Partido Alianza Verde*)
(4) Colombian Communist Party (*Partido Comunista Colombiano*)
(5) Alternative Democratic Pole (*Polo Democrático Alternativo*)
(6) Here for Socialism (*Presentes por el Socialismo*)
(7) Patriotic Union (*Unión Patriótica*)
(8) Citizen Power Movement (*Movimiento Poder Ciudadano*)

All of the above-listed Colombian parties favor continuation of the agreement reached between the administration of former Colombian President Juan Manuel Santos and the FARC. This is noteworthy because

Top: Representatives participate in the Special Meeting of the Council of Heads of State and Government of the Union of South American Nations (*Unión de Naciones Suramericanas,* or UNASUR) to transfer the pro tempore presidency of UNASUR 4 December 2014 in Guayaquil, Ecuador. Founded by Venezuelan President Hugo Chávez as an alternative to the Organization of American States, which he asserted was an instrument of U.S. colonial domination, UNASUR activities focus on supporting regional progressive actions of like-minded organizations aimed at establishing and extending the influence of socialist-oriented regimes and policies. (Photo courtesy of the Government of Chile via Wikimedia Commons)

Bottom: Members of the Forum of São Paulo (*Foro de São Paulo*) from Latin America and the Caribbean meet 13 April 2015 in Caracas, Venezuela, to ratify their support for Venezuela's disputed President Nicolás Maduro. The meeting was held in the face of a U.S. decree issued by President Barack Obama declaring the South American country a threat to U.S. national security. (Photo courtesy of the São Paulo Forum)

the FARC-government agreement, its future and the future of several institutions and legal mechanisms created under its aegis can significantly affect the power of the anti-American network generally.[25]

The most immediate change in the prospects of the FSP as the primary umbrella organization for leftist parties came with the October 2018 election of anti-PT Jair Bolsonaro as president of Brazil. As a Colombian observer noted, "With Bolsonaro, the Forum of São Paulo, strategic center of the disastrous Latin-American left (Castro, Lula, and Chávez) should disappear."[26] In Mexico, recently elected President Andrés Manuel López Obrador (popularly known as AMLO), who appears to have had a personal affinity for the Cuban Revolution, created MORENA, which is a party member of the FSP.[27] AMLO and MORENA, however, may prefer to exercise regional influence through its presence in COPPPAL than in the FSP because COPPPAL

employs more Mexican personnel and has a distinctly Mexican provenance.

Permanent Conference of Political Parties of Latin America and the Caribbean. The lead article on the official COPPPAL website in late October 2018 asserted the successful conclusion of COPPPAL's thirty-sixth plenary meeting that month in Panama City.[28] The president of COPPPAL is Manolo Pichardo from the Dominican Republic (where COPPPAL currently has its headquarters). Pichardo used part of his speech to the gathering to express support for the then imprisoned Brazilian Luiz Inácio Lula da Silva.[29] Although COPPPAL seems to have fewer overt member parties than the Forum of São Paulo, the two have in common their communities of parties with ideological affinity rather than forums of governments.[30] In terms of institutional health and influence, COPPPAL may fare better than the Forum of São Paulo during the next few years if for no other reason than the recently elected Mexican president is decidedly

socialist and pro-COPPPAL, whereas the recently elected president of Brazil, Jair Bolsonaro, is decidedly anti-socialist and opposed to the Forum of São Paulo.

COPPPAL also might experience some participation, funding, and mission expansion as a result of UNASUR's contraction, even while the latter is an ostensibly governments-based international organization. Notably, Jorge Arias of the Cuban PCC is listed as an adjunct executive secretary on the COPPPAL website.[31]

Pichardo is a member of the PLD, the party of the country's president. The PLD is also listed as a member of the Forum of São Paulo. Gustavo Carvajal Moreno, member of Mexico's Institutional Revolutionary Party (*Partido Revolucionario Institucional,* or PRI), is COPPPAL's vice president. COPPPAL projects an academic effort through the *Instituto de Formación Política Gustavo Carvajal Moreno,* which according to the COPPPAL website offers an academic program on political leadership for the twenty-first century.

Notably among the class offerings is a course titled, "The Importance of CELAC in the Current Political Context."

Community of Latin American and Caribbean States. According to its website, "CELAC is an intergovernmental mechanism for dialogue and political agreement … By mandate of the Heads of State and Government, CELAC is the unified voice of the region on issues of consensus. Regarding the representation of Latin America and the Caribbean; CELAC takes its faculties to act as spokesman for the community with other countries and regional blocs."[32]

Supporters listen as Revolutionary Armed Forces of Colombia-People's Army (*Fuerzas Armadas Revolucionarias de Colombia-Ejército del Pueblo,* or FARC-EP) leader Rodrigo Londoño, known by his nom de guerre Timochenko, speaks 1 September 2017 during the launching of the new political party Revolutionary Alternative Common Force at the Plaza de Bolivar in Bogotá, Colombia. (Photo by Jaime Saldarriaga, Reuters)

The last summit conference of the organization (its fifth) was held in Punta Cana, Dominican Republic, in January 2017.[33] The CELAC website does not provide complete information regarding attendance but does include a document titled "Political Declaration of Punta Cana, Summit V of the Chiefs of State and Government of CELAC."[34] Regarding the control of Venezuela, the following is of interest among the document's numerous resolutions:

> We support the process of national dialog in the Bolivarian Republic of Venezuela between the Government and the opposition of said country, under the oversight of the Secretary General of UNASUR, Ernesto Samper, ex-presidents José Luis Rodríguez Zapatero, Leonel Fernández, Martín Torrijos, and the special representative of his Holiness Pope Francisco … and under the principle of respect for non-intervention in the internal affairs of States.[35]

Also of note,

> We consider the return to the Republic of Cuba of the territory occupied by the United States Naval Base in Guantánamo … must be a relevant element of the process of normalization of relations between the two countries.[36]

CELAC is a product of organizational and diplomatic efforts by leaders in the PCC and PSUV, but with a less decidedly South American continental flavor than UNASUR. Launched circa 2011, it is newer than UNASUR and seems to have a relatively compact geographic and bureaucratic footprint centered on the Caribbean as well as a smaller budgetary overhead. As for extraregional relations, the following statement is revelatory:

> Regarding the representation of Latin America and the Caribbean; CELAC takes its faculties to act as spokesman for the Community with other countries and regional blocs. This includes the CELAC dialogue with the European Union, China, the Russian Federation, the Republic of Korea, the Cooperation Council for the Arab States of the Gulf, Turkey and Japan.[37]

Union of South American Nations. UNASUR was created circa 2005–2008 on the initiative of Hugo Chávez as an alternative to the Organization of American States.

Its purpose, beyond the typical structure for sinecures and fluidity of travel for party loyalists, was to create another formal mechanism in international law for influence within the hemisphere and beyond. As with other international organizations formed under the auspices of the PCC, PSUV, and PT, UNASUR expressly excluded the United States. Perhaps due to its obvious control by and preference for the owners of Latin American twenty-first-century socialism, the organization never enjoyed universal support among the national governments of the hemisphere. After the deaths of Hugo Chávez and Fidel Castro, and the general swing to the right of the hemisphere's ideological pendulum, UNASUR today finds itself in precipitous decline.[38]

Bolivarian Alliance for the Peoples of Our America. ALBA was also formed by PCC and PSUV leaders as a counterbalance to the Organization of the American States and has its headquarters in Caracas. At its founding, it specifically excluded membership by the United States. It is older than both UNASUR and CELAC, having been founded circa 2003. ALBA is styled as a governments-based international organization, and while smaller in terms of participating countries (currently nine) than UNASUR or CELAC, it presents itself as the most decidedly resolute in support of the PCC and PSUV.[39] Ecuador and Honduras were early members, but the governments of those two countries have quit the alliance. Ostensibly focused on economic facilitation among its members, ALBA advances PCC and PSUV positions on a complete range of international issues. Notably, the Dominican Republic's government does not appear to be represented as an official member.

Revolutionary Armed Forces of Colombia—Army of the People. In August 2017, together with voting delegates from the Clandestine Communist Party of Colombia, the FARC rebranded itself as a political party; the Alternative Revolutionary Force of the Majority (*Fuerza Alternativa Revolucionaria del Común*). But even the latter seems to maintain, at least informally, the lettering FARC-EP, with the EP standing for Army of the People (*Ejército del Pueblo*).[40]

The entity was to be a nonviolent political party with the attendant legal attributes and privileges. Since late 2016, prospects of the electoral-politics FARC have been bound up in the power-sharing agreement the FARC reached with then Colombian President Juan Manuel Santos. One leading analyst, Diego Molano, observed that

rather than two FARCs, we might recognize three,

> One FARC as a political party, which has not abandoned the [illicit drug trafficking] business … Another FARC as dissidents that continue to manage all the crops, routes, and to attack the population. And another that camouflages itself within the ELN in order to continue with the business.[41]

In a later development, there are indications that FARC might be experiencing an internal schism, with some of its leadership more personally bound to the political potential of the agreement with the Colombian government and others of the FARC secretariat returning or clinging to the more belligerent business model.[42] FARC and FARC-EP may soon further define themselves one from the other, both organizationally and geographically.[43] We should also keep in mind Diego Molano's observation about the third FARC—that the FARC and ELN may have a highly cooperative relationship.

National Liberation Army (*Ejército de Liberación Nacional*, or ELN). In its beginnings a university- and urban-based insurgency, the ELN has long been the lesser sibling to the FARC. Yet, while the FARC was attempting to demobilize as a result of agreements with the Colombian government,

Manolo Pichardo speaks at a Permanent Conference of Political Parties of Latin America and the Caribbean (*Conferencia Permanente de Partidos Políticos de América Latina y el Caribe*, or COPPPAL) meeting 2 June 2016. COPPPAL activities focus on supporting regional progressive actions of like-minded organizations—mainly socialist, communist, and left-leaning labor and populist/nationalist political parties—aimed at establishing and extending the influence of socialist-oriented regimes and policies. (Photo by Mihail García via Wikimedia Commons)

A National Liberation Army (*Ejército de Liberación Nacional*) guerrilla poster 7 March 2007 at the León de Greiff Auditory, National University of Colombia in Bogotá. The poster reads "*Ni Rendición, Ni Entrega,*" which translates to "Neither Surrender, Nor Yield." (Photo by Julián Ortega Martínez via Wikimedia Commons)

Venezuela's disputed President Nicolás Maduro marches with members of the Venezuela's armed forces 27 January 2019 during military exercises at Fort Paramacay in Naguanagua, Carabobo State, Venezuela. (Photo courtesy of the Office of the President of Bolivaran Republic of Venezuela)

the recent FARC reorganization and possible internal schism may have redounded to the benefit of the ELN as it moved to fill an insurgent void left by the demobilizing FARC forces. As a result, there are some indications that we may be witnessing the ascendance in status of the ELN within the Bolivarian movement, especially as an enforcement arm of its PSUV and PCC hosts within and near Venezuelan country borders.

Regarding the overall increase in ELN activity, especially inside Venezuela, there has been ample reporting, including to the effect that it is a welcome element within the Bolivarian control structure.[44] The FARC and ELN are perhaps to be considered two of several Bolivarian armed forces.

Traditional forces. Other organizational elements of the anti-American network worthy of our concern include the several intelligence services of the PCC and PSUV, as well as the formalized military wings of those parties, including the country-level regular armed forces that the PCC and PSUV control.[45] Of note

among the latter are the Bolivarian National Armed Force (*Fuerza Armada Nacional Bolivariana*, or FANB) and its subordinates, including the Bolivarian National Guard of Venezuela (*Guardia Nacional Bolivariana de Venezuela*, or GNB). There may exist some amount of discord and disaffection within and among these more formal pieces of the network.[46] Still, it appears that the PCC continues to consolidate and strengthen its dominant position as to their control.[47]

Prospects

The ascendance to power of anti-leftist political parties and party alliances in Colombia and Brazil presents a threat to some of the organizations of the leftist network described in this article.[48] That antileft threat could accelerate within the next couple of years as those administrations consolidate control over their respective government apparatuses, especially their intelligence services. These administrations could come to challenge the core or apex organizations within the leftist

consortium—the PSUV, and ultimately, the PCC. Any such trend, however, may have been offset somewhat by the recent re-possession of executive power in Argentina by a leftist (President Alberto Fernández was a cofounder of the Puebla Group). A recent news story regarding the freezing by the Argentinean courts of assets thought to be associated with Hezbollah is potentially a test case in this regard.[49] The event was related to the apprehension in Brazil of known money-launderer Assad Ahmad Barakat. Some consider that to be related in turn to another recent event, the detention in Cape Verde of Alex Saab, suspected money launderer for the Bolivarians.[50] It was not known at the time of this writing if Alex Saab would be extradited to U.S. law enforcement or how the Fernandez administration in Argentina would proceed as to the frozen Hezbollah assets. In any case, the news begins to illuminate the weave of relationships among geopolitics, transnational crime, and ideology.

If indeed there exist reasonable prospects of significant blows being delivered to the power of the PSUV and PCC, several extraregional entities are likely to be alarmed enough to take active countermeasures as they could lose consequential global strategic advantage were the two parties to be disempowered.[51] For example, a loss of power by the PCC and PSUV would directly affect the status quo of control (mostly in Venezuelan territory) over natural-resource exploitation infrastructures. The natural resources flowing from or through Venezuelan territory reasonably constitute the single greatest material prize in Latin America for several extraregional actors.

Those most affected would include the current regimes in Russia, China, and Iran, all of which have placed major economic bets to secure portions of Venezuela-based natural resource treasure. Additionally, a significant weakening of the PCC would in turn be likely to weaken the secondary members of the consortium as well as other of the region's transnational smuggling cartels.

As for the handful of international organizations facilitating the network, those organizations (FSP, COPPPAL, CELAC, UNASUR, ALBA, and now the Puebla Group) would weaken without the active presence of the PCC and its oversight. Meanwhile, given their membership rolls and stated purposes, those organizations appear highly unsuitable as partners or vehicles for U.S. plans and programs. Contrarily, they might best be considered as targets for monitoring and debilitation.

As a final note, it would be a useful strategy-making practice to discuss developments within the region according to affiliated political party identities and their associating multinational organizations rather than by country name (e.g., Venezuela or Cuba). The engine of the region's effective anti-Americanism and threat to U.S. interests is less a phenomenon to be associated with countries or their peoples than it is with certain of the region's political parties acting in concert. These are the real loci of destructive coercive power in the region, the mens rea. For example, any discussion of the future of Venezuela that does not revolve around the actions, reactions, and survivability of the Cuban PCC is incomplete and necessarily misleading. ∎

Notes

1. "Miembros de la Guardia Nacional Bolivariana llamaron a un alzaminto en un commando en Caracas y fueron arrestados" [Members of the Bolivarian National Guard called for an uprising in a Caracas command and were arrested], Infobae, 21 January 2019, accessed 15 July 2020, https://www.infobae.com/america/venezuela/2019/01/21/miembros-de-la-guardia-nacional-bolivariana-llaman-a-un-alzamiento-en-un-comando-en-caracas/.

2. National Media Affairs Office, "Nicolás Maduro Moros and 14 Current and Former Venezuelan Officials Charged with Narco-Terrorism, Corruption, Drug Trafficking and Other Criminal Charges," U.S. Drug Enforcement Administration, 26 March 2020, accessed 15 July 2020, https://www.dea.gov/press-releases/2020/03/26/nicolas-maduro-moros-and-14-current-and-former-venezuelan-officials.

3. It is not a purpose of the present article to build an argument as to what makes any of the organizations listed herein anti-American and destructive. Readers at all familiar with the region will recognize that the organizations listed as part of the conspiracy meet (by self-admission or according to multiple official U.S. government or other credible sources) one or more of the following criteria:

Anti-American: Organizations that explicitly claim to be anti-American (if perhaps under the phrases anti-imperialist or anticapitalist); exclude U.S. representation in their multinational deliberations and forums; and ally with extraregional powers that are generally considered strategic antagonists or adversaries of the United States, including most prominently, Russia, China, and Iran; run regimes from which the United States has withdrawn diplomatic recognition.

Destructive: Organizations that have leaders who are the subjects of international criminal indictments or have been convicted for criminal behaviors; are listed by the U.S. government as terrorist organizations; are documented as illicit drug traffickers by U.S. and international counterdrug law enforcement agencies; are similarly documented as illegal mining entrepreneurs; are similarly documented as accessories to or participants in human trafficking; support organizations dedicated to separating U.S. territory from

the United States; have caused mass involuntary outmigrations; have been complicit in or directly involved in the continuous destruction of the natural environment, including in neighboring countries; have been complicit in or directly involved in the destruction of economic infrastructure, including in neighboring countries; or that have otherwise offended.

4. "Partido Comunista de Cuba" [Communist Party of Cuba], EcuRed, accessed 7 May 2019, https://www.ecured.cu/Partido_Comunista_de_Cuba; Partido Socialista Unido de Venezuela [United Socialist Party of Venezuela], accessed 15 May 2019, www.psuv.org.ve.

5. Partido dos Trabalhadores [Brazilian Workers' Party, or PT], accessed 7 May 2019, http://www.pt.org.br/.

6. La Voz del Sandinismo [The Voice of Sandinismo], accessed 7 May 2019, http://www.lavozdelsandinismo.com/; "Frente_Sandinista_de_Liberación_Nacional" [Sandinista National Liberation Front], EcuRed, accessed 13 May 2019, https://www.ecured.cu/Frente_Sandinista_de_Liberación_Nacional; "Dirección Nacional MAS-IPSP" [National Leadership of MAS-IPSP], MAS-IPSP, accessed 13 May 2019, www.masipsp.bo.

7. Ramon Collado, "Dominican Republic is Drug Cartels' Supreme Transit Route in the Caribbean," Newsmax, 10 June 2020, accessed 15 July 2020, https://www.newsmax.com/ramoncollado/kingpin-pld-maduro/2020/06/10/id/971537/; on the geographic relationship of Hispaniola to the drug trade, see Tristan Clavel, "Trafficking Routes Up for Grabs After Fall of Top Caribbean Drug Kingpin," InSight Crime, 17 August 2017, accessed 8 May 2019, https://www.insightcrime.org/news/analysis/trafficking-routes-up-for-grabs-after-fall-top-caribbean-drug-kingpin/; Christopher Woody, "Here's How Drugs Are Getting Smuggled from South America to the US," Business Insider, 14 September 2017, accessed 8 May 2019, https://www.businessinsider.com/heres-how-drugs-are-getting-smuggled-from-south-america-to-the-us-2017-9; "17 Caribbean, Latin American Nations Named as Major Drug Producing or Transit Countries," News Americas Now, 2 March 2016, accessed 8 May 2019, https://www.newsamericasnow.com/17-caribbean-latin-american-nations-named-as-major-drug-producing-or-transit-countries/; "Full Circle: An Old Route Regains Popularity with Drugs Gangs," Economist (website), 24 May 2014, accessed 8 May 2019, https://www.economist.com/the-americas/2014/05/24/full-circle; "Transit Zone Operations," Office of National Drug Control Policy, accessed 8 May 2019, https://obamawhitehouse.archives.gov/ondcp/transit-zone-operations; United States Senate Caucus on International Narcotics Control, Preventing a Security Crisis in the Caribbean (Washington, DC: U.S. Senate, September 2012), accessed 8 May 2019, https://www.drugcaucus.senate.gov/sites/default/files/caribbean%20drug%20report.pdf.

8. This is reflected in the ambivalent course taken by Dominican Liberation Party (Partido de Liberación Dominicana, or PLD) leaders during the January 2019 challenge of Juan Guaidó to the Venezuelan presidency. On 24 January, the foreign ministry stated that it did not recognize Maduro's second term but also did not recognize Guaidó. Dominican PLD legislators, meanwhile, rallied in support of Nicolás Maduro. "República Dominicana reafirma que no reconoce el segundo mandato de Maduro pero no declara su apoyo a Guaidó" [Dominican Republic reaffirms that it does not recognize the second term of Maduro but does not declare its support for Guaidó], Europa Press, 24 January 2019, accessed 8 May 2019, https://www.europapress.es/internacional/noticia-republica-dominica-reafirma-no-reconoce-segundo-mandato-maduro-no-declara-apoyo-guaido-20190124173154.html; Stephanie Andújar, "Legisladores dominicanos manifiestan su apoyo a

Nicolás Maduro" [Dominican legislators show their support for Nicolás Maduro], HispanTV, 1 February 2019, accessed 8 May 2019, https://www.hispantv.com/noticias/dominicana/410089/legisladores-apoyo-maduro-golpe-eeuu-guaido.

9. Guido Áñez Moscoso, "El MAS y su ventaja electoral" [The MAS and its electoral advantage], El Deber (website), 15 March 2020, accessed 15 July 2020, https://eldeber.com.bo/169401_el-mas-y-su-ventaja-electoral.

10. Federico Boccanera, "El Foro de São Paulo: ¿qué es?" [The Forum of São Paulo: What is it?], La Patilla, 23 October 2019, accessed 15 July 2020, https:// www.lapatilla.com/2019/10/23/federico-boccanera-el-foro-de-sao-paulo-que-es/; Foro de São Paulo [Forum of São Paulo], accessed 8 May 2019, http://forodesaopaulo.org; Conferencia Permanente de Partidos Políticos de América Latina y el Caribe [Permanent Conference of Political Parties of Latin America and the Caribbean, or COPPPAL], accessed 8 May 2019, https://www.copppal.org/.

11. "Qué es el Grupo de Puebla, el nuevo eje progresista de América Latina al que apunta Alberto Fernández" [What is the Puebla Group, the new Latin American progressive axis directed by Alberto Fernández], La Nación, 1 November 2019, accessed 15 July 2020, https://www.lanacion.com.ar/el-mundo/que-es-grupo-puebla-nuevo-eje-progresista-nid2302810.

12. Unión de Naciones Suramericanas [Union of South American Nations, or UNASUR], accessed 8 May 2019, https://www.unasursg.org/; Community of Latin American and Caribbean States (CELAC), accessed 8 May 2019, http://celacinternational.org/; Alianza Bolivariana para los Pueblos de Nuestra América [Bolivarian Alliance for the Peoples of Our America, or ALBA], accessed 13 May 2019, www.portalalba.org.

13. Fernando Tineo, "El ELN se instaló en el Zulia" [The ELN installs itself in Zulia], Venepress, 7 September 2018, accessed 8 May 2019, https://venepress.com/article/El-ELN-se-instalo-en-el-Zulia1536339159281; Sebastiana Barraéz, "Las FARC se reagrupan en Apure" [The FARC regroups in Apure], Costa del Sol (radio), 28 September 2018, accessed 8 May 2019, http://www.costadelsolfm.net/2018/09/28/sebastiana-barraez-las-farc-se-reagrupa-en-apure/.

14. Geoffrey Demarest, "ELN and FARC Seek Sanctuary," Foreign Military Studies OE Watch 8, no. 11 (November 2018): 62, accessed 30 May 2019, https://community.apan.org/wg/tradoc-g2/fmso/m/oe-watch-past-issues/251377.

15. On this point, see, for instance, Elizabeth Burgos, "Venezuela, puerta de entrada de los nuevos imperios" [Venezuela, port of entry of the new empires], Revista Zeta, 10 November 2017, accessed 8 May 2019, http://revistazeta.net/2017/11/10/venezuela-puerta-entrada-los-nuevos-imperios/; "Rusia y Turquía, los aliados de Maduro ante crisis en Venezuela" [Russia and Turkey, Maduro's allies in facing the crisis in Venezuela], El Colombiano (website), 4 December 2018, accessed 8 May 2019, http://www.elcolombiano.com/internacional/venezuela/nicolas-maduro-presidente-de-venezuela-viaja-a-rusia-para-reunion-con-vladimir-putin-FJ9759272; Martin Arostegui, "New Air Bridge Reflects Iran's Growing Influence in Venezuela," VOA [Voice of America], 15 April 2019, accessed 30 May 2019, https://www.voanews.com/a/new-air-bridge-reflects-iran-s-growing-influence-in-venezuela/4876719.html.

16. "Partido Comunista de Cuba" [Communist Party of Cuba].

17. Ibid.

18. José Ramón Balaguer Cabrera, "São Paulo Forum, a Vital Battle for Unity," interview by Bertha Mojena Milián, Granma, 1 September 2018, accessed 8 May 2019, http://en.granma.cu/cuba/2018-07-16/sao-paulo-forum-a-vital-battle-for-unity.

19. "List of Participants of the 19th International Meeting of Communist and Workers' Parties, St. Petersburg, 1-4 of November 2017," accessed 8 May 2019, https://www.solidnet.org/.galleries/documents/Participants-List.pdf.

20. Raúl Castro Ruz, "The Development of the National Economy, along with the Struggle for Peace, and Our Ideological Resolve, Constitute the Party's Principal Missions: 7th PCC Congress Central Report, Presented by First Secretary Raúl Castro Ruz," Granma, 18 April 2016, accessed 8 May 2019, http://en.granma.cu/cuba/2016-04-18/the-development-of-the-national-economy-along-with-the-struggle-for-peace-and-our-ideological-resolve-constitute-the-partys-principal-missions.

21. PSUV, *Libro Rojo* [Red Book], accessed 16 July 2020, http://www.psuv.org.ve/wp-content/uploads/2014/12/Nuevo_Libro_Rojo_PSUV.pdf.

22. "Foro de São Paulo llama a defender a Venezuela, Nicaragua y el pueblo de Brasil" [Forum of São Paulo calls on defense of Venezuela, Nicaragua and the people of Brazil], PSUV, 16 July 2018, accessed 16 July 2020, http://www.psuv.org.ve/temas/noticias/foro--sao-paulovenezuelanicaraguapueblobrasilsan-vicente-y-granadinas-ministroralp-gonsalves/#.XNsQ_X_9nIU. Although Gonsalves did not attend the inauguration ceremonies for Nicolás Maduro this January, Saint Vincent and the Grenadines did send government representation and, as of this writing, had not withdrawn recognition of the Maduro government.

23. Partido dos Trabalhadores.

24. "PT, PSOL, PSB e Rede formalizam bloco de esquerda em oposição a Bolsonaro" [PT, PSOL, PSB and Rede formalize a leftist block in opposition to Bolsonaro], PT, 1 February 2019, accessed 9 May 2019, http://www.pt.org.br/pt-psol-psb-e-rede-formalizam-bloco-de-esquerda-em-oposicao-a-bolsonaro/. Like the PT, the Brazilian Socialist Party (*Partido Socialista Brasileiro*, or PSB) is a member of the Forum of São Paulo.

25. Ricardo Ferro, "Colombia y el peligroso Foro de São Paulo" [Colombia and the dangerous Forum of São Paulo], PanAm Post, 13 August 2018, accessed 30 May 2019, https://es.panampost.com/ricardo_ferro/2018/08/13/colombia-foro-de-sao-paulo/.

26. John Marulanda, "Bolsonaro: a la derecha, sin uniforme" [Bolsonaro: To the right, without uniform], Periódico Debate, 10 October 2018, accessed 9 May 2019, http://www.periodicodebate.com/index.php/opinion/columnistas-nacionales/item/20813-bolsonaro-a-la-derecha-sin-uniforme; see also Álvaro Riveros Tejada, "El corazón del Brasil late a la derecha" [Brazil's heart beats to the right], Eju TV, 10 October 2018, accessed 14 May 2019, https://eju.tv/2018/10/corazon-del-brasil-late-a-la-derecha/.

27. Rubén Cortés, "La raíz cubana de López Obrador" [López Obrador's Cuban base], América 2.1, 2 July 2018, accessed 9 May 2019, http://americanuestra.com/la-raiz-cubana-de-lopez-obrador; Carina García, "AMLO es la persona con más autoridad moral: Castro" [AMLO is the person with the greatest moral authority: Castro], El Universal (website), 28 November 2016, accessed 9 May 2019, https://www.eluniversal.com.mx/articulo/nacion/politica/2016/11/28/amlo-es-la-persona-con-mas-autoridad-moral-castro; "Who is Mexico's Andrés Manuel López Obrador?," BBC, 29 November 2018, accessed 30 May 2019, https://www.bbc.com/news/world-latin-america-44646478.

28. "Concluye de manera exitosa XXXVI Reunión Plenaria de la Copppal" [The XXXVI Plenary Meeting of the COPPPAL ends in a successful manner], COPPPAL, accessed 9 May 2019, https://www.copppal.org/concluye-de-manera-exitosa-xxxvi-reunion-plenaria-de-la-copppal/.

29. Ibid. The same article highlights the presence of a number of VIPs including Martín Torrijos, son of ousted dictator Omar Torrijos; Fernando Lugo, ex-president of Paraguay; and Pedro Miguel Gonzalez, secretary general of the Panamanian Democratic Revolutionary Party (*Partido Revolucionario Democratico*, or PRD). The PRD webpage indicates it is affiliated internationally with the Socialist International and the Forum of São Paulo.

30. "Conferencia Permanente de Partidos Políticos de América Latina y el Caribe" [Permanent Conference of Political Parties of Latin America and the Caribbean], EcuRed, accessed 14 May 2019, http://www.ecured.cu/Conferencia_Permanente_de_Partidos_Pol%C3%ADticos_de_Am%C3%A9rica_Latina_y_el_Caribe; "Países y partidos miembros" [Member countries and parties], Wayback Machine, accessed 9 May 2019, https://web.archive.org/web/20161023044831/http://copppal.org/contenidos/institucional/partidos_miembros.php. The official COPPPAL website did not have an accessible list of members but an archived site, Wayback Machine, includes a list of member parties, including parties from Caribbean islands that are not sovereign countries. There is considerable overlap of membership with the Forum of São Paulo, and all of the parties appearing to be leftist.

31. "¿Quiénes somos?" [Who are we?], COPPPAL, accessed 9 May 2019, https://www.copppal.org/quienes-somos-2/.

32. "CELAC," CELAC International website, accessed 9 May 2019, http://celacinternational.org/celac-2-2/; "CELAC: Estados miembros" [CELAC: Member states], Sistema Económico Latinoamericano y del Caribe (SELA), accessed 9 May 2019, http://www.sela.org/celac/estados-miembros/; "CELAC: Estados miembros" [CELAC: Member states], El Salvador Presidencia Pro Tempore CELAC website, accessed 9 May 2019, https://celac.rree.gob.sv/estado-miembro/. The latter two websites list thirty-three member states.

33. "CELAC: Cumbres" [CELAC: Summits], SELA, accessed 9 May 2019, http://www.sela.org/celac/cumbres/.

34. "Declaración Política de Punta Cana, V Cumbre de Jefas y Jefes de Estado y de Gobierno de la CELAC" [Political Declaration of Punta Cana, Summit V of the Chiefs of State and Government of CELAC], SELA, accessed 9 May 2019, http://www.sela.org/media/2463711/declaracion-politica-de-punta-cana.pdf.

35. Ibid.; compare this to EFE, "Aznar afirma que la crisis de Venezuela no se resuelve con diálogo político" [Aznar states that the crisis in Venezuela will not be resolved with political dialog], PanAm Post, 16 October 2018, accessed 9 May 2019, https://es.panampost.com/efe-panampost/2018/10/16/aznar-venezuela/.

36. "Declaración Política de Punta Cana."

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The 2003 Battle of Baghdad

A Case Study of Urban Battle during Large-Scale Combat Operations

Maj. Nicolas Fiore, U.S. Army

History instructs that for a variety of reasons, cities have always been targets for attack by adversaries.

—Gen. Donn A. Starry

Cities have been the dominant focus of military operations for most of human history, and a fundamental purpose of armies has been defending or attacking cities. Attacking defended cities has been one of the most difficult and potentially costly military operations. … Unfortunately, although strategists have advised against it and armies and generals have preferred not to, the nature of war has required armies to attack and defend cities, and victory has required that they do it well.

—Lt. Col. Louis DiMarco

The 2017 *National Security Strategy* and the U.S. Army's updated Field Manual 3-0, *Operations,* formally reintroduced the context in which the U.S. Army anticipates large-scale combat operations (LSCO) against a peer adversary to seize or defend a major city in order to control its globally connected, regionally dominant concentrations of power, people, and resources.[1] Large cities may constitute essential LSCO campaign objectives in a limited war to liberate friendly populations, threaten an adversary's control of its own state, or dislocate an adversary who finds urban battlefields attractive as part of a cost-imposing strategy to deter U.S. land forces and disrupt U.S. joint fires.[2] Although

the scope of LSCO does not include battle for a megacity, a U.S. joint task force (JTF) could campaign to control the capital of a buffer state.[3] Buffer states are often organized around one dominant, globally connected large city that contains the only operationally convenient infrastructure for joint logistics (see figure 1 on page 129 for a map of potential LSCO campaign urban objectives).[4]

The U.S. Army has a long history with urban warfare, from the Continental army's 1775 inaugural campaign to besiege British forces in Boston to the 2017 liberation of Mosul from the Islamic State. Since World War II, sweeping improvements in operational reach, mass urbanization, and the proliferation of irregular warfare increasingly compelled modern armies to fight in cities despite strategists' aversion to the high casualties and collateral damage that characterize urban combat.[5] Most recently, the major battles of the Syrian Civil War and the war against the Islamic State clearly demonstrate that neither the Russian nor American armies can avoid urban battle. Although both forces achieved their strategic objectives, visual media from Aleppo and the liberation of Mosul reminded the world how destructive urban battles can still be.[6] American military strategists questioned whether American voters, policy makers, and military leaders would continue to accept such high levels of casualties, collateral damage to infrastructure and the environment, and the concomitant reconstruction expense to U.S. taxpayers.[7] From a historical perspective, the devastation of Mosul's urban center was quite normal, but LSCO doctrine expects U.S. Army and allied land forces to replicate the exceptionally low destruction of the 2003 Battle of Baghdad, even when fighting peer adversaries.[8]

For Context: LSCO Adversaries May Prefer Urban Battles

In an urban battle, LSCO peer adversaries can contest and even dominate domains in an effort to defeat and destroy U.S. forces who could not be effectively resisted in the field.[9] Adversaries defeated in the field will likely retreat into the nearest city and attempt to regroup, and the U.S. commander may not be able to spare enough combat power to operationally fix and strategically isolate bypassed urban adversaries.[10] An

adversary who is determined to fight an urban battle against U.S. forces has already accepted the risk to its forces and civilians on the battlefield, and also to the high collateral damage associated with urban combat. Ruthless adversaries may even seek a high-attrition, high-destruction battle to deliberately inflict harm on concentrations of politically unfriendly civilians and destroy their cities as Syrian President Bashar al-Assad destroyed Aleppo from 2012 to 2017.[11]

Recognizing historical U.S. policy restraints, even adversaries with a vital postconflict interest in a theater's cities are likely to seek urban battles as legitimate ways to improve the correlation of forces and achieve their strategic objectives. U.S. commanders, bound by law and military ethics to establish rules of engagement that minimize noncombatant deaths and wanton destruction, should expect to fight LSCO urban battles with the dual objectives of defeating a peer-adversary force while protecting the city from civilian casualties and collateral damage.[12] Ever since the introduction of precision munitions, commanders in LSCO concentrated their use of firepower to seize urban objectives intact and manage damage to the city's population, physical structures, ecology, and life-sustaining interstitial systems.[13] In this context, a framework to structure the combat in an urban battle can help U.S. Army commanders win LSCO urban battles without accepting asymmetric risk to the mission, force, and nearby civilians.

A Historical Framework to Study Urban Battles

Urban battles typically follow a historical campaign pattern that begins with fighting in the field and ends with one of the combatants consolidating control of the city to enable follow-on operations.[14] In the classic Jominian formulation of an offensive expeditionary campaign, the line of operations leads from a base of operations toward a decisive objective—often the adversary's capital.[15] The adversary deploys from that base, and the defender accepts a decisive field battle in the frontier to protect the threatened city. If the attacker wins the field battle, then the defender should concede the war and negotiate the terms of peace to avoid further battles. During

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Previous page: A car burns on a bridge over the Euphrates River 31 March 2003 in Al Hindiyah, Iraq. U.S. Army Task Force 464, part of the 3rd Infantry Division, seized the bridge as part of its campaign to move north toward Baghdad. (Photo by John Moore, Associated Press)

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Expeditionary large-scale combat operations land campaigns are likely to center on large cities.
In a limited war with the aim of returning the conflict to competition, the Army would probably avoid adversary capitals, megacities, and force projection deep inland.

Legend

[M] Megacity (Population > 10 million)

◯ Very large city (Population 2 million to 10 million)

• Large city (Population 200 thousand to 2 million)

Red-filled states are the four named potential adversaries in the U.S. National Security Strategy. Other cities are marked near potential violent extremist adversaries.
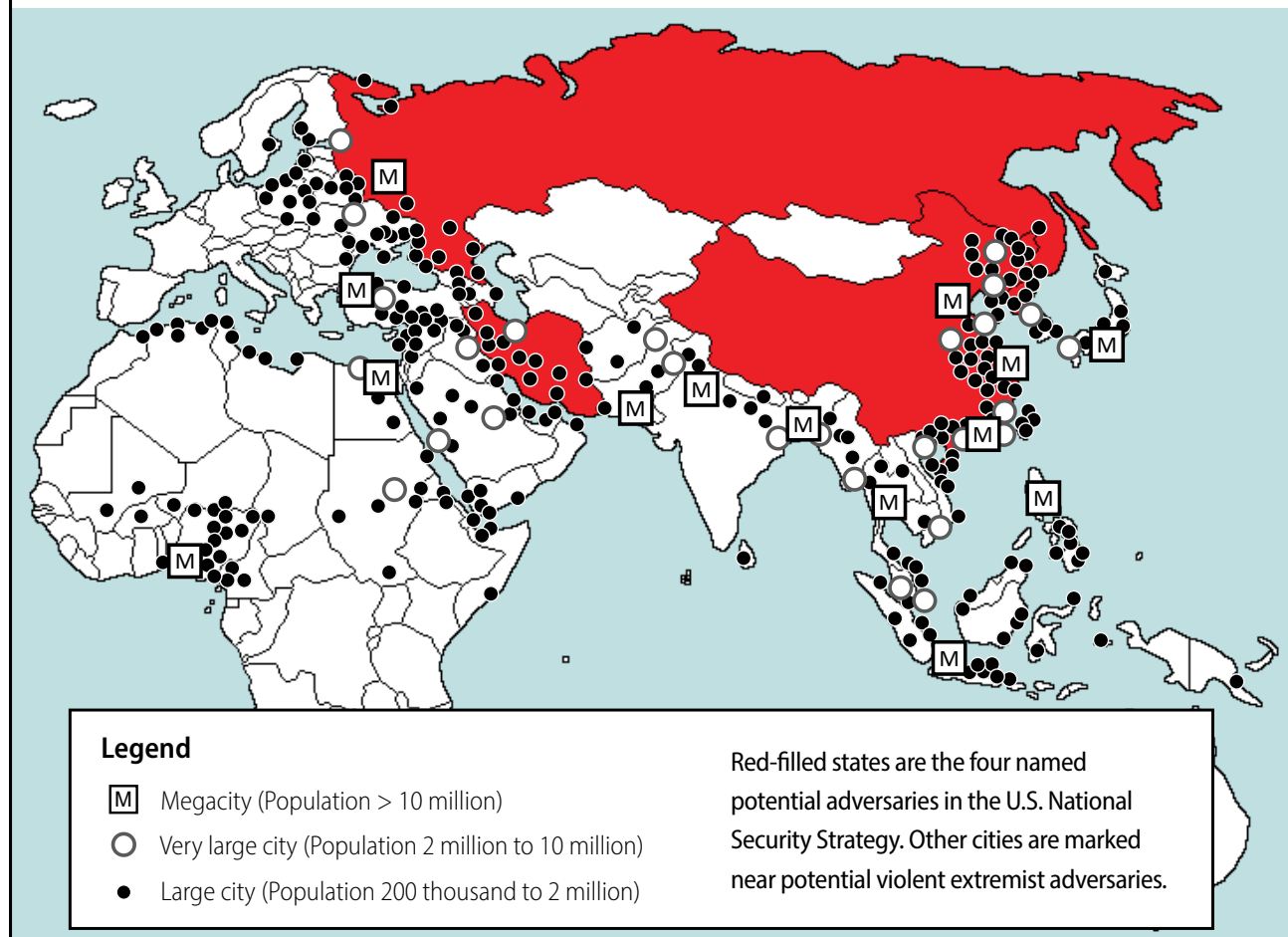
(Figure by author; adapted from visualization by *The Economist* and the UN's annual World Urbanization Prospects)

Figure 1. Large Cities in Potential Large-Scale Combat Operations Conflict Areas

Operation Desert Storm, the U.S. Army executed this type of field-centric operational approach to dislocate the Iraqi army from Kuwait and avoided fighting an urban battle for Kuwait City and its surrounding oil infrastructure. The successful conclusion of the war depended on a credible U.S. capability to continue the attack on Basra and Baghdad. In 1991, President Saddam Hussein reframed the U.S. decision to refrain from such an attack as a strategic victory for Iraq.[16] In 2003, the U.S.-led coalition resumed the offensive line of operations to defeat Hussein and forced him to fight defensive battles from his border rearward to Baghdad, his capital city.

Synthesized from U.S. Army doctrine and historical examples, the table (on page 130) shows an attacker-centric, chronologically arranged conceptual structure for an urban battle within a campaign's line of operations. The concept starts with the defeat of the adversary field army and culminates with decisive exploitative actions designed to defeat the defender's military cohesion and prevent it from preserving control over any portion of the city that would be sufficient to reestablish defense in depth. First, U.S. joint forces can operate in a position of technological advantage outside of the city, which will help land forces dislocate the peer adversary from

Table. Historical Event Template for an Urban Battle

	Attacking a large city	Defending a large city
Phase 0, **Open the** **Campaign**	**Defeat defending field army** • Secure line of operation to the city • Neutralize adversary army-in-being to prevent relief of city's defenders	**Prevent urban battle** • If suitably advantageous, attempt to defeat attacker away from city • Or, trade space for time, withdraw to the city to preserve combat power
Phase I, **Approach**	**Invest the city** • Encircle adversary forces in the city to interdict their lines of communication (LOC) • Establish consolidation area, basing, and durable LOC for prolonged siege • Negotiate to avoid siege and assault	**Concentrate forces within the city** • Disrupt and harass attacker's approach • Remove all available terrain-and population-sustainment into city • Maintain proximity to population for protection • Negotiate for time and external relief
Phase II, **Siege**	**Prepare an assault** • Maintain encirclement and LOC • Reconnoiter to gain understanding • Shape the battlefield to prepare for the assault, degrade adversary resistance, and influence civilian support	**Prepare to defend** • Protect and conserve military capabilities to sustain duration of resistance • Disrupt attacker's preparation; attrit offensive capability when economical • Negotiate for time and external relief
Phase III, **Assault**	**Assault to breach perimeter** • Deliberate breaching operations • Maintain command and sustainment of forces that enter the city • Establish a foothold to sustain reach	**Attrit attacking forces** • Use kill zones reinforced by obstacles • Maintain integrity of obstacle system • Counterattack to stop penetrations and restore defensive depth
Phase IV, **Exploit** **(Decisive)**	**Destroy adversary cohesion** • Seize essential objectives • Destroy defender's interior lines • Create information effects that defeat adversary's credibility and confidence	**Preserve control** • Reestablish a perimeter to maintain unit cohesion and interior lines • Trade space for more opportunities to attrit the attacker
Phase V, **Consolidate** **Gains**	**Consolidate against remnants** • Clear city of organized defenders; prevent transition to insurgency • Impose control and order on city, disrupt population support to adversary • Follow-on forces assume stability role • Consolidate gains and combat power to resume and sustain offensive operations	**Minimize losses** • Capitulate: negotiate for protection of combatants, civilians, and property • Denial: obliterate value from the city to degrade the attacker's prize • Insurgency: transition to irregular defense; disrupt consolidation of gains but not enough to invite obliteration

(Table by author; applied concepts found in FM 3-0, *Operations*. This event template can frame tactical actions when studying or planning for urban battles.)

the field, isolate remaining adversary forces inside the city, and shape the urban battlefield to create favorable conditions for an assault. Then, the JTF's supremacy in integrated joint firepower will help land forces dominate a small portion of the defender's perimeter to penetrate, but the decisive point of the battle occurs after that successful breach, when an assault element inside the city must destroy the adversary's defensive cohesion through synchronized action in multiple domains. Finally, consolidating the attack requires continuous operations to protect civilians and isolated adversary remnants using the four stability mechanisms.[17]

The urban battle begins in Phase I (Approach) when the defender abandons the field to consolidate its main force within the city to defend its perimeter. Once the attacker identifies that only a disruption force remains in the field, the attacker will deploy a division to approach and invest the city while other forces deploy to protect the siege against external relief. If the attacker can encircle the city, it will gain the operational initiative by monopolizing the ability to deploy additional capabilities to the battlefield, and the attacker can leverage the city's suburban transportation network to gain movement and distribution advantages.

In Phase II (Siege), the attacker develops a siege that shapes the battlefield, the adversary, and friendly forces by improving the terrain, targeting adversary capabilities, and preparing maneuver units for the eventual assault.[18] The defender prepares to repel that assault by constructing shelters that protect and sustain combat power for the duration of the siege as well as tactical obstacles in engagement areas to attrit the attacker's assault forces. The defender can also use regular and irregular spoiling attacks in the attacker's close and consolidation areas to disrupt its preparation activities, influence negotiations, and even shift the correlation of forces until it is so unfavorable that the attacker must quit the siege.

Phase III (Assault) begins when the attacker assesses that conditions are most favorable to assault the city. This decision is influenced by mission considerations (including policy, time available, and weather) and by the success of both friendly and adversary shaping operations in altering the correlation of forces. Although a prepared defense will significantly attrit the assaulting force, as long as the attacker enjoys external freedom of maneuver, it can deliberately concentrate overwhelming force at any

breach site and will penetrate the defender's perimeter. However, modern urban density creates depth in large cities that enables defensive delaying tactics, so it is more difficult for the attacker to completely penetrate the defensive perimeter in a way that automatically defeats the cohesion of the adversary's defense. The attacker must resource the assault for rapid and sustainable follow-on operations to exploit the breach; otherwise, the defender can use protected internal lines to concentrate combat power to counterattack the penetrating force, establish a new defensive perimeter, and force the attacker to prepare another costly deliberate assault.

The fight to control the interior of the city in Phase IV (Exploit) is the operationally decisive phase of the urban battle. When the attacker finally breaks the defender's interior lines and seizes essential objectives, the previously integrated defense will fragment into several unsupported positions without purpose, which the attacker can reduce at leisure. Conversely, if the defender can consistently withdraw and establish a new cohesive defense, then it can trade depth for fresh opportunities to attrit the attacker until the costs of successive assaults force the attacker to quit the siege or until an external force can come to the defender's relief.

Phase V (Consolidate Gains) is the conclusion of the battle. Whoever controls the city must consolidate gains in order to enable follow-on operations and translate the outcome of the battle into the campaign's desired strategic effect.

Whoever loses the urban battle could choose to capitulate and negotiate with the attacker as in Beirut (1982), or the loser could choose to destroy the city to deny it to the attacker as in Hue (1968) or Mosul (2017). In recent U.S. Army urban battles in Iraq and Afghanistan, the attacking force decisively defeated adversaries in Phase IV (Exploit), only to conduct years of Phase V (Consolidate Gains) stability operations

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A Bradley Fighting Vehicle from Company A, Task Force 1-64 Armor, attacks up Highway 8 into Baghdad on 5 April 2003. The task force executed what were called "Thunder Runs" raids into Baghdad to assess Iraqi defenses. (Photo courtesy of Fort Stewart Museum, U.S. Army)

against insurgent adversaries who continued to contest the Army for control of the city and its people.

Baghdad Was the Decisive Point in the Coalition Forces Campaign Plan

In the following case study, we can use the framework depicted in the table to retrospectively structure actions by the U.S. Army's 3rd Infantry Division (mechanized) (3rd ID) to seize the capital city of Iraq in the 2003 Battle of Baghdad. Baghdad is representative of the very large cities shown in figure 1 (on page 129). With a population of five million people, it was large, systemically important to the global energy economy, and composed of modern physical structures serviced by integrated interstitial systems. In a LSCO context, the U.S. Army attacked with an expeditionary division of combat power to execute the campaign's decisive battle. The defending Iraqis began the campaign with near-peer land and air forces but were overmatched in the field so they incorporated irregular forces into a hybrid-capability

organization to defend the decisive capital city using a cost-imposing strategy. The defenders' hybrid tactics were similar to U.S. Army opposing forces doctrine, and in the dense urban environment, the Iraqis were able to strongly contest the attacker in multiple domains, so they offered the U.S. forces a decisive urban battle for control of Baghdad.[19] The battle is most famous for 2nd Brigade's Phase III (Assault) "Thunder Run," but the divisional effort to shape in Phase II (Siege) and to sustain maneuver in Phase IV (Exploit) to exploit 2nd Brigade's breach were just as essential to winning the battle without obliterating the city and its people.

The seven-day long Battle of Baghdad was the decisive battle of the U.S. LSCO campaign to remove

Hussein from power and eliminate the risk that he would use weapons of mass destruction to destabilize the Middle East.[20] Baghdad is a city of five million people, divided roughly in half by the Tigris River, with a generally radial pattern of modern roads. During planning, American strategic and operational commanders in the Combined Forces Land Component Command (CFLCC) agreed that seizing

destructive assault into Baghdad (Phase III, Assault and Phase IV, Eploit).

At this point in the war, Hussein feared a military coup as much as he feared a U.S. attack, so he organized hybrid groups of regular army and paramilitary organizations to ensure his control, even at the cost of undermining the coordinated defense of Baghdad (Phase I, Approach).[25] For weeks the Iraqi military deployed

> "Hussein feared a military coup as much as he feared a U.S. attack, so he organized hybrid groups of regular army and paramilitary organizations to ensure his control, even at the cost of undermining the coordinated defense of Baghdad."

the "regime district" in western Baghdad was one of the campaign's military objectives because control of those key government headquarters in the heart of the city could defeat the adversary regime without requiring U.S. forces to clear every city block.[21] Unwilling to execute a deliberate, firepower-centric, attritional approach to seizing the city, the CFLCC directed 3rd ID and 1st Marine Division (1 MARDIV) to attack Baghdad—but avoid house-to-house fighting—and seize only the critical nodes and infrastructure that might weaken the regime and hasten its collapse. To reinforce the campaign's strategic restraint on the use of force, neither division was augmented with additional forces to clear and hold the large city's urban terrain and would not receive the replacements required to support high-attrition tactics.[22] Instead, the preinvasion plan to seize Baghdad envisioned U.S. forces invading from three different directions (Phase I, Approach), then directed 3rd ID and 1 MARDIV to establish a loose cordon of operating bases outside Baghdad to invest the city (Phase II, Siege).[23] Over several weeks, mechanized forces would then conduct raids into the city, interdict Iraqi units trying to escape, and eventually, follow-on divisions would clear the city once the Iraqi army was defeated (Phase V, Consolidate Gains).[24] Strategic planners expected that pressure by land forces combined with airstrikes would force the Iraqi regime to capitulate and accept U.S.-led regime change without an expensive and

in concentric perimeters for a long siege and deliberate clearance by U.S. light infantry (Phase II, Siege). After studying the battles of Mogadishu and Grozny, Iraqi military planners did not expect the U.S. Army to expose its tanks to street fighting inside the city. In the absence of a cohesive central command, Iraqi commanders used couriers to establish the city's defenses, constructed hasty barriers, and demolished the eastern Diyala River bridges to block the vehicular approaches to eastern Baghdad.[26]

U.S. 3rd Infantry Division (Mechanized) in the Battle of Baghdad, April 2003

After the initial fighting to cross the Iraqi border, two U.S. corps invaded along parallel axes leading to Baghdad.[27] From 3 to 6 April, each corps led with a mechanized division that destroyed two Iraqi Republican Guard divisions during the approach to Baghdad (Phase 0). As expected, Iraqi forces withdrew into cities, which the U.S. forces largely bypassed. A three-day operational pause to refit 3rd ID also allowed the CFLCC to set conditions for the urban battle by first defeating Iraq's mobile forces, attriting the Republican Guard divisions outside of Baghdad using joint firepower, and securing 3rd ID's ground supply lines back to the theater port of entry before ordering 3rd ID to approach Baghdad from the south (Phase I, Approach).[28]

The 3rd ID commander, Maj. Gen. Buford C. Blount III, expected to face a sophisticated city-defense strategy

in which elite Republican Guard units and Fedayeen paramilitaries would block the approaches to key facilities in western Baghdad's riverside regime district. From 3 to 4 April, however, 3rd ID's 1st and 2nd Brigades attacked from the south and the northwest against ineffective resistance over intact roads and bridges to seize Baghdad International Airport and surrounded the city from the south, west, and north (Phase II, Siege). On the other side of the Tigris River, 1 MARDIV was still several days away from eastern Baghdad.

Intelligence and imagery reported that there were no integrated obstacles on the major highways, and coalition airstrikes were so effective that Iraqi soldiers were deserting in large numbers. Blount concluded that the Iraqi defense of Baghdad was much weaker than anticipated, and with control of the international airport as a secure operating base, 3rd ID could sustain offensive operations with unexpected freedom of maneuver.[29] He also realized that a long siege might not be necessary to set conditions for a successful assault. Blount preferred to retain the initiative and not give Hussein weeks to conduct an information campaign to inflame global public opinion against the blockade of Baghdad's five million civilians. Blount decided to depart from the campaign plan and conduct a "Thunder Run"—in doctrine what is called a reconnaissance in force—on 5 April to assess if it was possible to penetrate Baghdad's defenses with minimal risk.[30] On the other side of the Diyala River, 1 MARDIV had not yet invested the eastern half of the city, but Blount could still order 3rd Brigade to attack north on the following day, 6 April, to complete the operational isolation of western Baghdad.[31]

The northern encirclement attack on 6 April was also successful but against tougher—if still ineffective—Iraqi resistance. The two attacks validated that Blount could change his operational approach from a deliberate siege to a series of rapid penetrations to physically and psychologically dislocate the regime. If Thunder Runs could continue to penetrate western Baghdad's defenses with minimal casualties, the psychological effect of Hussein not being able to control his own capital would be devastating to the regime. Instead of waiting for reinforcements and allowing the Iraqis to improve their paltry engagement areas, Blount ordered a second, much larger raid to attack a little deeper along a different axis on 7 April (Phase III, Assault).[32]

Col. David Perkins, the brigade commander who commanded both Thunder Runs, decided to further modify the division's operational approach. If it were feasible, Perkins not only wanted to attack deeper into western Baghdad than Blount intended, but he also wanted to seize and hold his objective instead of conducting a raid and withdrawal. During the first Thunder Run, Perkins assessed that the Iraqi defense of western Baghdad was ill-prepared and uncoordinated. Iraqi forces were not systematically organized into integrated, obstacle-supported kill zones, and counterattacks were small and sporadic. This time, his brigade could penetrate the Iraqi defense without a deliberate breaching operation and sustain at least ten hours of combat in central Baghdad. If resupplied on the objective, the second Thunder Run could even retain the regime district where most of the essential government buildings were located. The psychological effect could cause Hussein's regime to collapse, and without those key facilities, the defenders' ability to command and sustain the defense of Baghdad would disintegrate (Phase IV, Exploit).[33]

In response to 3rd Brigade's 6 April attack to isolate Baghdad from northern Iraq—and unaware that 2nd Brigade was preparing for another Thunder Run—the Iraqi Republican Guard concentrated a combined-arms brigade in northwest Baghdad and counterattacked 3rd Brigade at dawn on 7 April in an attempt to reopen the Iraqi line of communication to reinforcements north of the city (Phase III, Assault). 3rd ID responded with massed artillery and airstrikes to support 3rd Brigade's effort to block the Iraqi breakout at a bridge over the Tigris River. Both sides struggled to control the essential bridge, until the second Thunder Run began and inadvertently spoiled the Republican Guard's ability to reinforce its breakout attempt.[34]

The second and decisive Thunder Run commenced on 7 April with a predawn breach to clear lanes through a hastily laid minefield (Phase III, Assault). Although dismounted sappers removed the mines covertly and the attack began as planned at dawn, the minefield indicated that Iraqi generals anticipated a second raid and had improved their perimeter defense of western Baghdad.[35] The division used long-range rockets to target high-payoff targets, such as Iraqi fire support and air-defense artillery, and massed fires from a self-propelled howitzer battalion to suppress each key intersection along 2nd Brigade's route ten minutes ahead of the

3rd Infantry Division sequenced brigade attacks to undermine Iraqi responses.
The Iraqi army could not react effectively to the daily change in 3rd ID's direction of attack. The decisive 7 April "2nd Thunder Run" spoiled the Iraqi breakout attempt and turned their defense of the Diyala River against 1st Marine Division east of Baghdad.
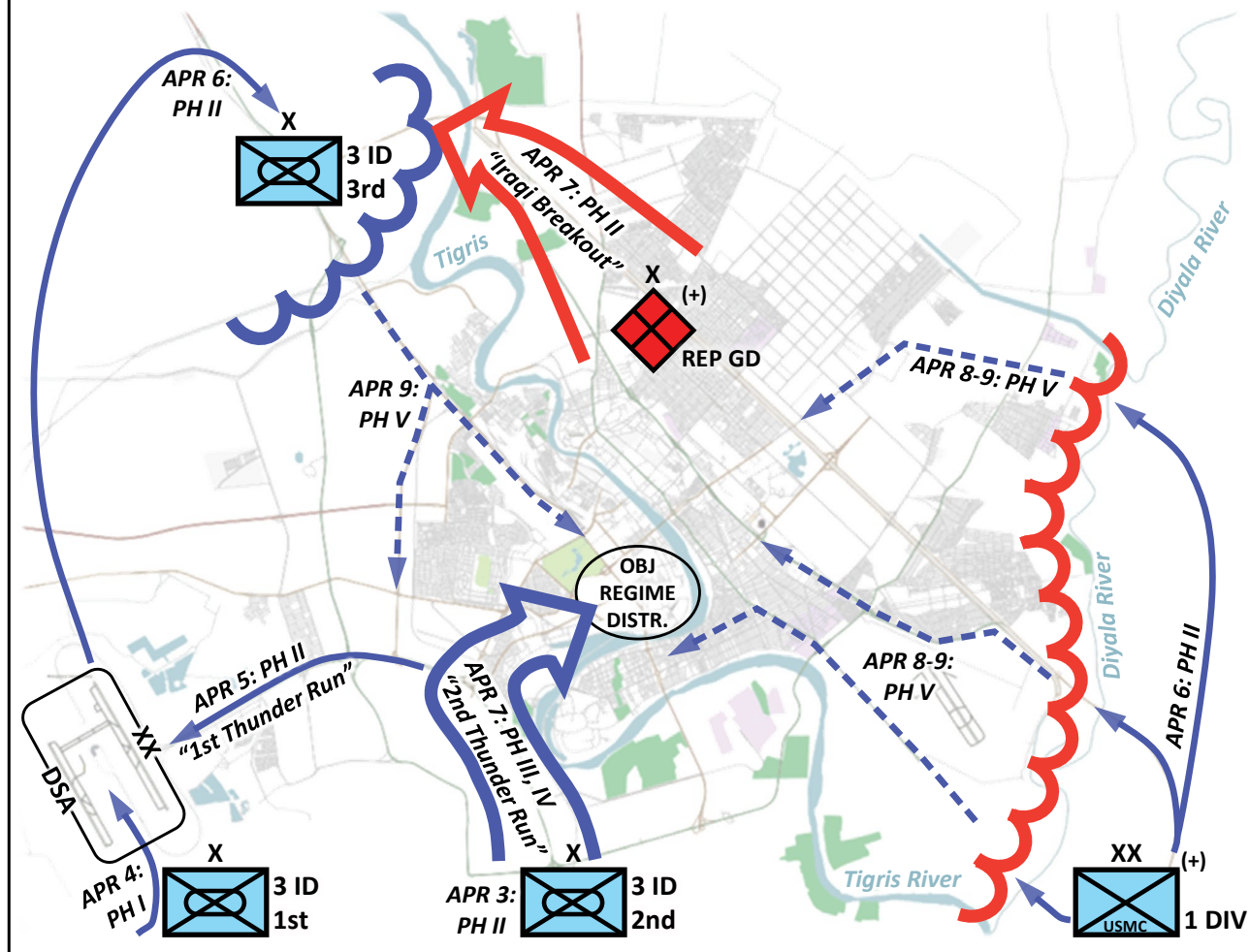
(Figure by author)

Figure 2. 3rd Infantry Division's Daily Attacks Spoiled the Iraqi Army's Defense of Baghdad

moving armored column.[36] The division artillery denied the Republican Guard's use of these key terrain features as defensive roadblocks and forced Iraqi infantry to harass the column with ineffective small-unit ambushes from bunkers and buildings near the road. The Iraqis launched uncoordinated counterattacks with light weapons, but without a well-prepared combined-arms defense supported by integrated obstacles and artillery, the Iraqis had no hope of stopping the mechanized formation. 2nd Brigade penetrated twenty kilometers

in two hours to seize the regime district at the heart of Baghdad and then fought all day and night to defend its foothold against Iraqi counterattacks. Blount had to commit his reserve battalion to reinforce Perkins and resupply the 2nd Brigade so it could retain the regime district until morning. At dawn, international media reported that the U.S. Army had defeated the Iraqi Republican Guard inside its own capital, and Hussein's regime began to collapse (Phase IV, Exploit).[37] Figure 2 is a map of the battle with heavy lines showing the actions

on 7 April, the decisive day of the battle. Solid lines show the attacks that set conditions for the decisive Thunder Run by seizing the airport for a division support area and isolating the northern and eastern sectors, and dotted lines show consolidation actions afterward.

Thousands of Iraqi soldiers and militiamen counterattacked in small groups until the morning of 8 April, but 3rd ID retained both the encirclement of western Baghdad and the decisive foothold in the central regime district.[38] The Iraqi military command

Baghdad, reestablish order, and prepare for the next combat operation (Phase V, Consolidate Gains).[39] In a seven-day urban battle, two U.S. divisions dislocated Hussein's regime from Baghdad and rendered the Iraqi regular military irrelevant. 3rd ID exploited the "Thunder Run" penetrations and made it clear to Hussein's regime, the Iraqi people, and international audiences that American forces controlled Baghdad and had won the LSCO phase of the war.[40] Hussein was not captured, however, and his regime never

Soldiers from Company A, 3rd Battalion, 7th Infantry Regiment, search one of the presidential palaces 8 April 2003 in Baghdad. The palace was the second that the U.S. Army had secured in as many days; both lavish buildings were heavily damaged by U.S. Air Force bombing. (Photo by John Moore, Associated Press)

proved unable to reestablish a perimeter to defend the rest of the city (Phase IV, Exploit), and as early as 7 April, some Iraqi units began disbanding to pursue guerrilla warfare. Iraqi forces continued to melt away on 8 and 9 April when 1 MARDIV crossed the Diyala River into eastern Baghdad and linked up with 3rd ID at the Tigris. On 10 April, the U.S. Marine Corps and 3rd ID began consolidation operations to clear

formally capitulated. The regime's key leaders reorganized the surviving soldiers for a guerrilla campaign that soon returned him to strategic relevance.[41]

Conclusion: Using the Framework to Analyze the Battle of Baghdad

The framework in the table is a way to understand the seven-day Battle of Baghdad by arranging tactical

actions sequentially into phases. The Phase III (Assault) penetration into the heart of the regime district was preceded by weeks of joint fires and shaping attacks to isolate the regime inside Baghdad, and it was decisive because it created opportunities that the division exploited at tempo. The phases may not have firm transitions;

> It is obvious that the Iraqi defenders were explicitly unprepared to defend Baghdad inside the city's urban environment and did not transition well between the phases.

for example, in the Battle of Baghdad, the coalition was still fighting to surround the city (Phase II, Siege) when Perkins's brigade executed the 7 April Thunder Run. However, actions can still be arranged by purpose to understand the relationship between the phases, especially once 3rd ID approached Baghdad and began to isolate the Iraqi defenders from external assistance.

During Phase II (Siege) and Phase III (Assault), Blount sequenced his brigade attacks for maximum effect; every day, a different brigade seized a new objective in Baghdad from a different direction than the day before. This sequencing maintained pressure on Hussein's regime and spoiled the defenders' response to the previous day's attack by creating a new dilemma each morning. 3rd ID's measured tempo also ensured that the headquarters could concentrate divisional resources in support of that day's main effort and maintain a mechanized battalion as the division commander's maneuver reserve at the airport. The reserve could respond to any threat in western Baghdad within two hours, and this mitigated the risk that an element of 3rd ID could be cut off deep in Baghdad the way Somali militia concentrated to defeat the U.S. mobile column in the 1993 Battle of Mogadishu. Blount's reserve proved essential on 7 April when it escorted 2nd Brigade's logistical resupply convoy into central Baghdad to exploit the penetration's tactical success. Without that resupply and the extra battalion of reinforcements, Perkins's brigade could not have stayed in central Baghdad and the second Thunder Run would have had no more strategic effect than its Phase III (Assault) predecessors.

Historically, Phase IV (Exploit) is decisive in urban battles because after penetrating the defensive perimeter, the attacker gains an opportunity to destroy the defenders' interior lines and cohesion and prevent the establishment of a new perimeter. Blount recognized that the tactically successful Phase III (Assault) attacks to encircle Baghdad and to seize its airport, and even the first Thunder Run inflicted heavy casualties but did not significantly impact the regime's will to fight.[42] LSCO penetrations have proved effective at destroying adversary capabilities but ineffective at convincing adversaries to negotiate a resolution to the conflict. The second Thunder Run toppled Hussein's regime because it was nested with a global information and psychological operation that convinced enough Iraqis that continuing to fight to defend Baghdad—and the regime that claimed to control it—was futile.

Through the lens of the framework, it is obvious that the Iraqi defenders were explicitly unprepared to defend Baghdad inside the city's urban environment and did not transition well between the phases.[43] Throughout the battle, routes were intact because Hussein refused to allow his military to deliberately destroy bridges and overpasses during Phase I (Approach).[44] He forbid his military commanders to coordinate Baghdad's defense, prepare defensive obstacles in depth, or withdraw the Republican Guard armored divisions into the city where artillery and firepower could have engaged American armor at close range.[45] Instead of fighting a Phase II (Siege) defensive delay to gain time in eastern Baghdad's dense zones of multiple-story residences, the Iraqi military destroyed bridges over the Diyala. The river created a barrier that kept the 1 MARDIV out of eastern Baghdad for two additional days, but the decision also shifted the coalition to focus on western Baghdad where concrete highways and the wide-open regime district were vulnerable to the Thunder Run tactics.[46]

If 3rd ID had followed the preinvasion plan to besiege its half of the city and waited for 1 MARDIV to clear eastern Baghdad in a series of deliberate Phase III assaults, then the Iraqis could have created enough time to organize a better defense of western Baghdad. Baghdad's rivers and canals provide natural terrain for successive defensive perimeters; if the Iraqi military had developed concentric obstacle belts, each canal and neighborhood would have offered a new Phase IV (Exploit) opportunity to attrit the coalition. Weeks of defensive delay operations could have given Hussein the time he needed to strategically exploit collateral damage to undermine the coalition and resolve the conflict along the lines of Desert Storm in 1991.

Hussein did not retain control of Baghdad long enough to deliberately affect the battle's Phase V (Consolidate Gains) activities. For several months, the coalition consolidated control of Baghdad and the rest of Iraq, neither opposed nor assisted by Hussein's former regime. Perhaps the original campaign plan's slower, more-deliberate operational approach to seizing Baghdad would have better mitigated the insurgency that erupted in 2004.[47] U.S. strategic and operational commanders assumed that risk when they chose not to forbid the aggressive raids, and Blount and Perkins each took maximum advantage of their respective higher commander's intent when planning and executing the Thunder Runs.[48] Regardless, no amount of U.S. soldiers would have been sufficient in Phase V (Consolidate Gains) to pursue and process the hundreds of thousands of armed but disorganized soldiers and militia outside of Baghdad who scattered across the country after the Battle of Baghdad and later reconstituted themselves as insurgents.[49]

Even though 3rd ID did not capture enough of the regime's key leaders, remaining military personnel, and equipment in Phase IV (Exploit) and Phase V (Consolidate Gains) to prevent the later insurgency, 3rd ID's Thunder Runs undisputedly won the Battle of Baghdad.[50] 3rd ID defeated the Iraqi defenders, exploited the mechanized penetrations to dislocate Hussein's regime, and seized Baghdad with less-than-expected civilian casualties and collateral destruction.[51] The historical framework used in this article helps readers analyze the Baghdad Thunder Runs within the battle's larger context and notice the significance of the shaping and exploitation actions before and after the famous mechanized raids.[52] ∎

Notes

Epigraph. Donn Starry, foreword to *Block by Block: The Challenges of Urban Operations*, ed. William G. Robertson and Lawrence A. Yates (Fort Leavenworth, KS: U.S. Army Command and General Staff College [CGSC] Press, 2003), vii, accessed 1 May 2020, https://www.armyupress.army.mil/Portals/7/Primer-on-Urban-Operation/Documents/BlockByBlock_TheChallengesOfUrbanOperations.pdf.

Epigraph. Louis DiMarco, "Attacking the Heart and Guts: Urban Operations through the Ages," in Robertson and Yates, *Block by Block: The Challenges of Urban Operations*, 1.

1. The White House, *National Security Strategy of the United States of America* (Washington, DC: The White House, 2017); Field Manual (FM) 3-0, *Operations* (Washington, DC: U.S. Government Publishing Office [GPO], 2017).

2. FM 6-27, *The Commander's Handbook on the Law of Land Warfare* (Washington, DC: U.S. GPO, 2019), para. 1-19. The U.S. Army's manual on the law of land warfare specifically constrains commanders' use of military force in urban battles and exhorts the commander to exceed the minimal requirements of military necessity, humanity, honor, distinction, and proportionality when planning to use military force near civilians and noncombatants.

3. Michael Evans, "The Case Against Megacities," *Parameters* 45, no. 1 (Spring 2015): 33–43.

4. "Daily Chart: Bright Lights, Big Cities," *The Economist* (website), 4 February 2015, accessed 1 May 2020, http://www.economist.com/node/21642053; United Nations (UN) Department of Economic and Social Affairs, *World Urbanization Prospects: The 2018 Revision* (New York: UN, 2018), accessed 1 May 2020, https://population.un.org/wup/Publications/Files/WUP2018-Report.pdf.

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6. Thomas Arnold and Nicolas Fiore, "Five Operational Lessons from the Battle for Mosul," *Military Review* 99, no. 1 (January 2019): 56–71.

7. Gian Gentile et al., *Reimagining the Character of Urban Operations for the U.S. Army: How the Past Can Inform the Present and Future* (Santa Monica, CA: RAND Corporation, 2017).

8. John Spencer, "The Destructive Age of Urban Warfare; or, How to Kill a City and How to Protect It," Modern War Institute at West Point, 28 March 2019, accessed 4 May 2020, https://mwi.usma.edu/destructive-age-urban-warfare-kill-city-protect/; The White House, *National Security Strategy*, 2. The *National Security Strategy* names four adversaries: China, Russia, Iran, and North Korea.

9. FM 3-0, *Operations*, 1-9; John Spencer, "Stealing the Enemy's Urban Advantage: The Battle of Sadr City," Modern War Institute at

West Point, 31 January 2019, accessed 4 May 2020, https://mwi.usma.edu/stealing-enemys-urban-advantage-battle-sadr-city/.

10. Russell W. Glenn, *Heavy Matter: Urban Operations' Density of Challenges* (Santa Monica, CA: RAND Corporation, 2000), 11. Glenn points out that even bypassed cities can become resource magnets for the operational-level commander.

11. UN Human Rights Council, *Report of the Independent International Commission of Inquiry on the Syrian Arab Republic*, A/HRC/40/70 (New York: UN General Assembly, 2017), accessed 4 May 2020, https://reliefweb.int/sites/reliefweb.int/files/resources/G1902320.pdf; Amnesty International, *Left to Die Under Siege: War Crimes and Human Rights Abuses in Eastern Ghouta, Syria* (London: Peter Benenson House, 2015), 51, accessed 4 May 2020, https://www.amnesty.org/en/documents/mde24/2079/2015/en/.

12. FM 6-27, *The Commander's Handbook on the Law of Land Warfare*, para. 2-22.

13. Starry, foreword to Robertson and Yates, *Block by Block*, viii. Interstitial systems connect and support life and activity within a city, commonly including water, food, energy, communications, transportation, manufacturing, economic, commercial, and entertainment systems; Michael Batty, "Cities as Complex Systems: Scaling, Interactions, Networks, Dynamics, and Urban Morphologies," in *Encyclopedia of Complexity and Systems Science*, ed. Robert A. Meyers (New York: Springer, 2009), 1042–43.

14. DuPuy Institute, *Measuring the Effects of Combat in Cities Phase I* (Fort Belvoir, VA: Center for Army Analysis, 2002), 5–6.

15. H. W. Halleck, *Elements of Military Art and Science* (New York: D. Appleton, 1846), 56. As translated by Halleck, Baron Antoine-Henri de Jomini's *Art of War* described the standard archetype for an offensive land campaign: win the war by defeating the adversary's army in the field and seizing their capital.

16. Michael R. Gordon and Bernard E. Trainor, *The General's War: The Inside Story of the Conflict in the Gulf* (Boston: Little, Brown, 1995), 480.

17. Army Doctrine Reference Publication 3-0, *Operations* (Washington, DC: U.S. GPO, 2016), 2-3. The four Army stability mechanisms are compel, control, influence, and support.

18. The term "siege" is used here instead of "isolate" to allow for surrounding a city without the intent to psychologically isolate the defenders.

19. Training Circular 7-100, *Hybrid Threat* (Washington, DC: U.S. Government Printing Office, 2010), chap. 4 and 5. The U.S. Army's Training Circular 7-100 series manuals describe contemporary hybrid adversary organization, strategy, and tactics. Chapters 4 and 5 discuss hybrid adversary urban operational approach.

20. Gregory Fontenot, E. J. Degen, and David Tohn, *On Point: United States Army in Operation Iraqi Freedom* (Fort Leavenworth, KS: Combat Studies Institute Press, 2004), xxiii.

21. William Wallace and Kevin C. M. Benson, "Beyond the First Encounter: Planning and Conducting Field Army and Corps Operations," in *Bringing Order to Chaos: Historical Case Studies of Combined Arms Maneuver in Large-Scale Combat Operations*, ed. Peter J. Schifferle (Fort Leavenworth, KS: Army University Press, 2018), 6–9.

22. Fontenot, Degen, and Tohn, *On Point*, 47–50.

23. Joel D. Rayburn and Frank K. Sobchak, eds., *The U.S. Army in the Iraq War, Volume 1: Invasion, Insurgency, Civil War 2003-2006* (Carlisle, PA: Strategic Studies Institute and U.S. Army War College Press, 2019), 59.

24. Ibid., 99.

25. Ibid., 69–75. In the week before the invasion, many of the Iraqi irregular and militia forces moved from Baghdad to defend other cities in the south. It is unclear how many returned to Baghdad by the time the 3rd Infantry Division (Mechanized) attacked in April.

26. David Zucchino, *Thunder Run* (New York: Grove Press, 2004), 135–48.

27. Williamson Murray and Robert H. Scales Jr., *The Iraq War: A Military History* (Cambridge, MA: Belknap Press, 2003), 89–96.

28. Ibid., 241–45.

29. Fontenot, Degen, and Tohn, *On Point*, 331–36.

30. Jim Lacey, *Takedown: The 3rd Infantry Division's Twenty-One Day Assault on Baghdad* (Annapolis, MD: Naval Institute Press, 2007), 205-6.

31. Rayburn and Sobchak, *The U.S. Army in the Iraq War*, 100–1.

32. Anthony E. Carlson, "Thunder Run in Baghdad, 2003," in *16 Cases of Mission Command*, ed. Donald P. Wright (Fort Leavenworth, KS: Combat Studies Institute Press, 2013), 108–9.

33. Zucchino, *Thunder Run*, 72–82.

34. Fontenot, Degen, and Tohn, *On Point*, 374–76.

35. Zucchino, *Thunder Run*, 97–101.

36. Ibid., 103–4.

37. Fontenot, Degen, and Tohn, *On Point*, 352–54.

38. Zucchino, *Thunder Run*, 195–97. Lt. Col. Stephen Twitty's experience is typical of these small counterattacks by ad hoc platoon- and company-sized groups armed with rifles and rocket-propelled grenades, and sometimes supported by vehicle-borne suicide bombers. Instead of using assembly areas to organize, they often drove or ran indiscriminately into lethal U.S. engagement areas.

39. Fontenot, Degen, and Tohn, *On Point*, 377–78.

40. Bing West and Ray L. Smith, *The March Up: Taking Baghdad with the 1st Marine Division* (New York: Bantam Books, 2003), 231–32.

41. Murray and Scales, *The Iraq War*, 252.

42. Zucchino, *Thunder Run*, 72–73.

43. Stephen Biddle, "Speed Kills? Reassessing the Role of Speed, Precision, and Situation Awareness in the Fall of Saddam," *Journal of Strategic Studies* 30, no. 1 (February 2007): 3–46. Biddle assessed that the U.S. invasion owed much of its success to Iraqi military incompetence. Biddle specifically pointed out that in the Battle of Baghdad, the Iraqi failure to destroy bridges to slow down the coalition and the decision not to use the Republican Guard in an urban warfare environment.

44. Gregory Hooker, *Shaping the Plan for Operation Iraqi Freedom: The Role of Military Intelligence Assessments*, Military Research Papers No. 4 (Washington, DC: Washington Institute for Near East Policy, 2005), 70–71.

45. Lacey, *Takedown*, 159.

46. West and Smith, *The March Up*, 190–205.

47. Rayburn and Sobchak, *The U.S. Army in the Iraq War,* 103. The campaign originally planned for 70–120 days of combat, including time to negotiate with the Iraqi regime, but the actual fighting took only twenty days.

48. Lacey, *Takedown*, 230–33.

49. Walter J. Boyne, *Operation Iraqi Freedom* (New York: Forge Press, 2003), 161–63.

50. Ibid., 241.

51. Fontenot, Degen, and Tohn, *On Point*, xxiii and 378.

52. Boyd L. Dastrup, *Artillery Strong: Modernizing the Field Artillery for the 21st Century* (Fort Leavenworth, KS: Combat Studies Institute Press, 2018), 150–67; Lacey, *Takedown*, 260–61.

Strong Reasons Make Strong Actions

Closing the Leadership Gap in the Army Medical Corps

Maj. Victoria Fernandes Sullivan, MD, U.S. Army

Strong reasons make strong actions.
—William Shakespeare, *The Life and Death of King John*

On 31 December 2019, China reported the first cluster of cases of COVID-19 to the World Health Organization.[1] Less than one month later, the first case arrived in the United States, and within the next two months, the deadly virus had spread across the entire country. On 28 March 2020, the first U.S. service member died; he was Army Capt. Douglas Linn Hickok, a physician assistant.[2] As of this publication, the death toll in the United States is over 180,000 and continues to rise.

It is not too late for the United States to avoid hundreds of thousands of deaths. The crisis can be controlled by strong, competent, military medical leaders who are accustomed to practicing in resource-constrained environments (and who focus on patient triage to do the most good for the most people). This crisis must be fought by all who are integral members of the medical team and led by physicians and researchers who are subject-matter experts in clinical medicine and leadership.

The U.S. health care system has struggled to learn about COVID-19 and the sickness it causes. The civilian health care system is a patchwork of public and private clinics and hospitals. Raquel Bono, director for COVID-19 Health System Response Management, led an effort to coordinate the virus response in Washington state.[3] She is a surgeon trained in general surgery, trauma, and critical care and is exceptionally qualified to lead the effort. However, there are infectious disease specialists, disaster medicine doctors, and scientists who may have more subject-matter expertise regarding COVID-19 and pandemics in general. Why was Bono selected? Her selection was almost certainly due to her leadership experience. Bono is a retired Navy vice admiral and is the former director of the Defense Health Agency. She served in numerous leadership positions throughout her military career, including during Operations Desert

Next page: Lt. Col. Juli Fung-Hayes (*right*), a U.S. Army Reserve emergency medicine physician with the 2nd Medical Brigade, works with 2nd Lt. Megan King, an emergency nurse with the 396th Combat Support Hospital out of Fairchild Air Force Base, Washington, to apply a bag-valve mask on a patient in a field environment 18 July 2018 during a simulation at Fort Hunter Liggett, California. (Photo by Master Sgt. Michel Sauret, U.S. Army Reserve)

Shield and Desert Storm, and this experience sets her apart from other doctors. In times of crisis and operations within complex environments, subject-matter experts are not enough; leaders are needed.

Another group of military physician-leaders anticipated the challenges of the pandemic and realized that clinicians who normally do not take care of

injuries on the battlefield.[6] With medical professionals including medics, nurses, physical and occupational therapists, veterinarians, dentists, and doctors joining the ranks, soldiers had a better chance of surviving diseases and wounds. The achievements of military medicine have also profoundly changed modern civilian medicine; breakthroughs in triage, treatment

> In times of crisis and operations within complex environments, subject-matter experts are not enough; leaders are needed.

critically ill patients would be expected to do so in many military facilities. Within a matter of weeks, critical care doctors Lt. Col. Renee I. Matos and Col. Kevin K. Chung led a multidisciplinary team of fifty-five personnel in developing and publishing the Department of Defense's *COVID-19 Practice Management Guide*. It is a concise document of information that clinicians need to know in order to care for patients critically ill with COVID-19.[4]

All over the country, U.S. military physicians and scientists are leading efforts to respond to the COVID-19 pandemic. In a memorandum to Department of Defense (DOD) personnel, Secretary of Defense Mark Esper wrote that military medicine is critical to the Army's "whole-of-nation response to the coronavirus," from providing civilian hospitals with medical supplies to deploying the Navy's two hospital ships and multiple Army field hospitals. He concludes by writing, "Our world-class doctors and scientists remain on the leading edge of vaccine and treatment development."[5]

The current COVID-19 pandemic is proving a point that physicians and scientists who are well-trained and practiced in the art of leadership are needed to ensure the U.S. Military Health System (MHS) is able to protect and save service members in times of chaos such as pandemics and large-scale combat operations.

Past Contributions of Military Medicine

During the Civil War, two-thirds of Union and Confederate soldiers died of illnesses such as pneumonia, typhoid, dysentery, and malaria rather than from

of traumatic brain injuries and posttraumatic stress disorder, artificial limbs, and blood transfusions are just a few examples.[7] Military physicians and scientists lead in innovation, research, and development.

Medical Threats in Today's Operational Environment

Even with these medical advancements, the Army faces daunting current and future medical threats; the COVID-19 pandemic is proof. The U.S. military saw the effects the 1918 influenza pandemic had on its combat power.[8] Other naturally occurring threats such as malaria, the Zika virus, and Ebola have presented challenges to our country as well. Weaponized chemical, biological, radiological, and nuclear capabilities are no longer limited to the arsenals of superpowers. Conventional forces across the world are racing to develop more lethal weapons. The space and cyber domains are now contested, presenting a threat that medical operations could be shut down in seconds. In large-scale ground combat operations, there is a likelihood that supply chains will be disrupted and units will be isolated, which will require medical personnel to provide prolonged field care in austere, resource-constrained environments. Civilian doctors will likely need to be drafted.

Today's hurdles such as too few ventilators and medical staff to treat the high volume of patients foreshadow some of the medical challenges the United States will face in large-scale ground combat operations.

The U.S. military is a learning organization and has responded to past, present, and anticipated

medical threats by prioritizing research, education, and development in the medical field. The U.S. Army Institute of Surgical Research, the Armed Forces Institute of Regenerative Medicine, Walter Reed Army Institute of Research, and the Army's Telemedicine and Advanced Technology Research Center are dedicated to medical missions that will protect soldiers from myriad threats and improve survival rates of the wounded.[9]

These organizations are critically important to driving medical innovation and anticipating medical threats. However, their budgets are insufficient. The organizations' funding has been threatened in the past and may be in the future. Having leaders at their helms who are scientists and physicians that understand the work and can articulate how it contributes directly to the strength of the U.S. military and to the United States is crucial. Research and development are only as useful as the end users, which in this case is the MHS.

in an environment of uncertainty for the past three years because of a number of changes. Medical facilities are undergoing reorganization under one common chain of command, the Defense Health Agency, rather than under each military branch. The Pentagon planned to cut nearly eighteen thousand medical bil-

The Washington state director for COVID-19 Health System Response Management, retired U.S. Navy Vice Adm. Raquel Bono, holds a press conference 10 April 2020 at the Spokane City Fire Training Center in Spokane, Washington. (Photo used with permission by Dan Pelle, *The Spokesman Review*)

Changes to the Military Health System

The MHS's mission is to ensure the health of service members; ensure all medical personnel are trained and ready to support the operational force; and provide a medical benefit to service members, retirees, and their families.[10] The MHS has operated

lets to reshape the force, though those plans are now on hold.[11] Some hospitals and clinics are either closing or are no longer serving retirees and dependents. The system by which Army doctors and nurses are deployed has changed. Finally, the electronic health record is being replaced. The EMR previously consisted of at least four legacy systems. In an effort to improve coordination and data sharing between the military and veterans' health care systems, a commercial-off-the-shelf system called MHS Genesis is replacing those legacy systems. It is being fielded throughout

the MHS in waves, starting in September 2019, with completion expected by 2024.[12]

The future vision of military medicine is in question. The National Defense Authorization Act for Fiscal Year 2017 called for a complete reorganization of military medicine to minimize redundancies between services offered by the Army, Air Force, and Navy health systems. To lead this change, the Defense Health Agency was created and charged with the administration of every military medical treatment facility; this transition is happening now.[13] The transition may mean fewer leadership positions are available to military doctors at medical treatment facilities because these positions can be filled by civilians.

Another change for the Army Medical Corps (MC) in 2019 was that the professional filler system was replaced by the modified table of organization and equipment assigned personnel system.[14] With the professional filler system, Army physicians were assigned to hospitals or clinics and would be attached to a unit for a deployment. Now, under the modified table of organization and equipment assigned personnel system, physicians and other health care personnel are organic to a unit but report to a military hospital or clinic for work every day. Their chain of command can recall them to the unit as needed for training, administrative tasks, and deployments. One potential implication of this change is it will be more difficult for doctors to receive "top-block" ratings on officer evaluation reports since they must balance their duty requirements with their unit as well as with the hospital.

Maj. Victoria Fernandes Sullivan, MD, U.S. Army, is a recent graduate of the Command and General Staff College, Fort Leavenworth, Kansas, and a rheumatologist at William Beaumont Army Medical Center in El Paso, Texas. She holds a BA in biology from Siena College, where she commissioned from Army ROTC as a Distinguished Military Graduate. She earned her MD from Albany Medical College, New York. Sullivan completed her internal medicine residency at Madigan Army Medical Center, Fort Lewis, Washington, served as chief of medical residents, and was named a Waxman Scholar by the American College of Physicians (the first military chief resident to earn this national accolade). Her subspecialty training in rheumatology was completed at Walter Reed National Military Medical Center. She is dual board certified in internal medicine and rheumatology. She deployed with 3rd Brigade Combat Team, 101st Airborne Division, to Kandahar, Afghanistan.

Identifying the Leadership Gap in the Army Medical Corps

Amidst all of the changes listed above, physicians continue to provide excellent patient care throughout the DOD. Within the next few years, the effects these changes will have on the military will be visible. The medical corps must be involved at every level to ensure that the changes do not negatively impact patients. The MC must also advocate for physicians and all personnel at the bedside who are critical to the health care team. Herein lies a gap in the MC; more doctors must be formally trained in leadership to help the MHS navigate uncertain waters, including this pandemic, and the threat of large-scale ground combat operations.

The military excels at leadership. Leadership is developed through on-the-job training and mentorship. Many officers will pursue graduate degree programs, often in subjects that emphasize leadership, such as a master's in business administration (MBA) or a master's in leadership. In fact, the Army has broadening opportunity programs, the intent of which is "to develop an officer's capability to see, work, learn, and contribute outside each one's own perspective or individual level of understanding for the betterment of both the individual officer and the institution. The result of broadening is a continuum of leadership capability at direct, operational, and strategic levels."[15]

Unfortunately for physicians and scientists with doctoral-level degrees, these broadening leadership opportunities are unavailable, yet physicians need these skills as well. Many medical schools do not include consistent, formalized leadership instruction in their curriculum. Currently, if a physician wants to develop his or her leadership skills, it will likely be on his or her own time and with his or her own dime. For example, the handful of military physicians who have an MBA, a master's in health administration (MHA), or a similar degree have either paid out of pocket to do coursework online (a significant time burden on them and their families), or in a few cases, took two years off

A soldier checks the temperature of a civilian 5 April 2020 at Century Link Field Event Center in Seattle. Approximately five hundred soldiers from Joint Base Lewis-McChord, Washington, and Fort Carson, Colorado, assembled and operated an Army field hospital in support of the COVID-19 response. (Photo by Pvt. 1st Class Genesis Miranda, U.S. Army)

from practicing medicine to obtain their MHA/MBA degree through the Army-Baylor University program.[16]

There are senior-level physicians who are passionate about leadership, but the MC should not depend on the Herculean efforts of these few to teach leadership.[17] The Army's current approach to developing physicians as leaders places the onus on the individual and his or her family rather than incentivizing the development and taking the pressure off of the physicians. Here lies an enormous opportunity for the Army to develop its physicians as officers, improve physician retention, and increase employee satisfaction in the MC by showing that the organization values its physicians. From a strictly utilitarian standpoint, adding depth to the pool of formally trained military physician-leaders will help ensure medical performance is optimized during times of crisis, such as pandemics and during large-scale ground combat operations.

Closing the Gap

How can the Army operationalize better leadership training for its physicians? Almost one decade ago,

leaders in the MC published "All Physicians Lead," a document that sought to improve leadership training in the MC.[18] However, to my knowledge, none of their recommendations have been implemented corps-wide.

To a corps engrossed in taking care of patients, training the next generation of doctors, and deploying, adding more mandatory training will be detrimental. Leadership training should be voluntary but encouraged and supported. The following approach may be practical for busy professionals:

- Adopt a formalized leadership curriculum to be used either in graduate medical education or once doctors have completed training. This curriculum should include didactics on conflict

management, emotional intelligence, self-aware-ness, decision-making skills, and influence. Many organizations have developed rigorous leadership curricula before now, so any new curriculum does not need to be developed from scratch; however, military-specific lessons must be added to any preexisting curriculum (e.g., "All Physicians Lead," "Lead 2.0" curriculum).

- Continue to develop leadership skills in the work-place. Once a foundation of knowledge has been gained, students of leadership must develop these skills. Much of this can happen through work-ing in their usual jobs and leading medical teams. Additional leadership development opportunities should not be cumbersome; they can be combined with professional development. Doctors can be sent to medical conferences where networking occurs and leadership sessions are offered. Leadership retreats during the work week are another avenue to deliver this development opportunity without infringing on precious free time and family time. Mentorship allows leaders to continue to develop, and this is an area in which the military excels.

- Finally, provide a pathway for those who want to be operational and strategic leaders. Currently, master's degrees such as MBAs are not supported for those with doctoral-level degrees. Remove this hurdle. Having a doctorate in medicine should not preclude an officer from developing themselves further in another subject as long as these skills will serve the military and the indi-vidual. Preserve the opportunity for physicians to attend the Command and General Staff College in residence. The leadership curriculum offered at the Command and General Staff College is in-valuable, as is the opportunity to work with and learn from peers from other branches, services, and nations. This experience is not replicated at satellite schools or in distance learning. Work with Baylor University to create a flexible MHA/MBA curriculum that allows physicians to attend the program while continuing to care for patients at the bedside. One oft-named barrier to pursuing formal leadership training is that physicians do not want to lose their clinical skills or take time away from caring for patients to attend school. If the curriculum was amended so

that doctors could attend class and still care for patients, more of the MC may compete for the Baylor MHA/MBA program.

Some say the majority of physician billets in the military can be adapted for civilians or that physicians within the military can be limited to clinical roles and excluded from leadership roles. However, if these changes happen, there will be a dearth of leadership skills among physicians during crises and deploy-ments. The evidence is growing that good leadership "positively influences both patient and healthcare organization outcomes."[19] A 2016 *Harvard Business Review* article summarized multiple studies that sup-port the premise in which physicians are good hospi-tal leaders for a variety of reasons: they are domain experts, they are dedicated to patient care, and they have peer-to-peer credibility.[20]

Many civilian doctors are not trained in leader-ship and do not have experience with it. Few medical schools include consistent, formalized leadership didactics in their curriculum. A systematic review of leadership training in graduate medical education reviewed over three thousand publications in medical literature and found that the leadership curricula that do exist in medical schools are "heterogeneous and limited in effectiveness."[21]

What We Ought to Be

Change is difficult in a large organization such as the U.S. military, and yet it is not impossible, as more than a century of medical innovation and leadership shows. Officer physicians must steward the profession and lead the MHS through change and challenges and emerge stronger from each one. Gen. Douglas MacArthur seems to have been speaking directly to Americans during these trying times when he said,

> Duty, Honor, Country: Those three hallowed words reverently dictate what you ought to be, what you can be, what you will be. They are your rallying point to build courage when courage seems to fail, to regain faith when there seems to be little cause for faith, to create hope when hope becomes forlorn.[22]

Fellow physicians, scientists, clinicians, and military lead-ers, in this forlorn moment of human history, we must rally with courage, faith, and hope, and strive to be what we ought to be and can be. ∎

Notes

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A cannibalized high mobility multipurpose wheeled vehicle (HMMWV) sits next to other HMMWVs awaiting repair. Such cannibalized vehicles or other pieces of equipment are sometimes used to skew unit readiness reporting requirements and mask unit logistical and materiel deficiencies. (Photo courtesy of J. VanDomelen, https://blogs.mentor.com/jvandomelen/blog/2011/12/28/power-problem-what-now/)

Unit Status Reports and the Gaming of Readiness

Capt. Theo Lipsky, U.S. Army

From March 2018 to November 2019, the Department of Defense Office of the Inspector General conducted an audit of the U.S. Army's active component readiness. The audit's resultant report was, on the whole, positive. Yes, the Army could use more low bed semitrailers, towed-howitzer telescopes, and electromagnetic spectrum managers. But overall, the Army had "met or exceeded" the goal of 66 percent of its brigade combat teams (BCT) reporting the "highest readiness levels for seven consecutive quarterly reporting periods."[1]

The unfortunate truth of the report, and others like it, is that it substantiates its findings with data from the Department of Defense Readiness Reporting System-Army (DRRS-A). The DRRS-A readiness data in turn comes from unit status reports (USR) provided by BCTs' constituent battalions. This reporting labyrinth obscures what anyone who has compiled a USR knows: unit status reports are deeply flawed. The effects of those flaws are twofold: USRs not only fail to capture the readiness of reporting units, but they also actually *harm* the readiness of reporting units. The reports do so because they demand inflexible quantitative measurements unfaithful to the outcome they purport to depict—how ready a unit is to accomplish its mission. The commanders and staff chase readiness as the USR measures it, often at the cost of actual readiness.

This paradox, wherein organizational obsession with quantifying results corrupts them, is what historian Jerry Z. Muller has called "metric fixation."[2] The corruption in the case of readiness reporting takes many forms: the displacement of actual readiness with empty numbers, short termism among commanders and their staff, the collapse of innovation, the burning of endless man hours, and the

hemorrhaging of job satisfaction. But to understand the scope of the harm, one must first understand the desired end (in this case, readiness) and the metrics used to measure it—the USR and its components.

The impetus to explore the USR's shortcomings comes from my experience working twenty-four months as a troop executive officer. The following argument represents that single, tactical perspective on the problem, but I derive confidence in it from lengthy discussions and review with tactical and operational leaders across every type of BCT in multiple combatant commands. With uncanny unanimity and precision, leaders have echoed these concerns. This signals strongly to me that these issues are unfortunately not limited to a single formation.
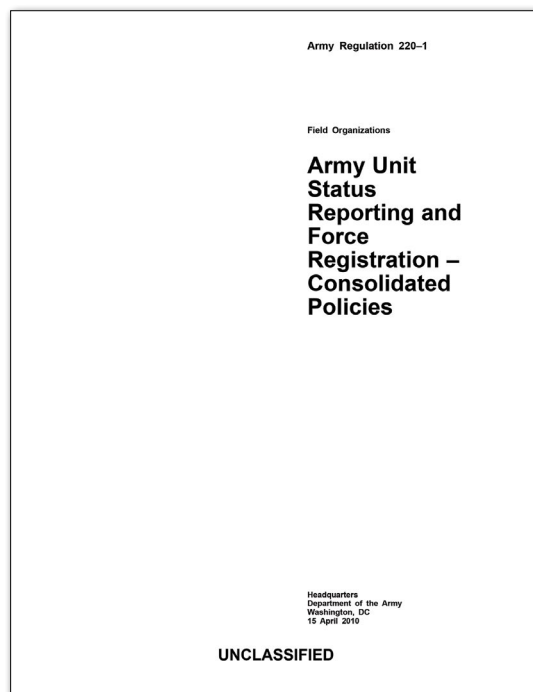
The Anatomy of the Unit Status Report

In 2011, Congress established the readiness reporting requirement and defined readiness in the first paragraph of 10 U.S.C. § 117. Readiness, it says, is the ability of the Armed Forces to carry out the president's *National Security Strategy*, the secretary of defense's defense planning guidance, and the chairman of the Joint Chief's *National Military Strategy*. Simply put, readiness is the capacity for the armed forces to fulfill assigned missions.[3]

The U.S. code, having defined readiness, outlines how it ought to be reported. The language unambiguously requires discrete, quantitative metrics. Any system "shall measure in an objective, accurate, and timely manner."[4] The verb of choice in this sliver of code is "measure," trotted out no fewer than seven times over two paragraphs.

The imperative to quantify readiness does not find a mandate in code alone. It also enjoys a vociferous booster in the Government Accountability Office

Army Regulation 220–1

Field Organizations

Army Unit Status Reporting and Force Registration – Consolidated Policies

Headquarters
Department of the Army
Washington, DC
15 April 2010

UNCLASSIFIED

To view Army Regulation 220-1, *Army Unit Status Reporting and Force Registration—Consolidated Policies*, visit https://armypubs.army.mil/epubs/DR_pubs/DR_a/pdf/web/r220_1.pdf.

(GAO). A 2016 GAO report typifies its argument for hard numbers and the tongue-clicking that ensues when results are insufficiently quantified: "The services have not fully established metrics that the department can use to oversee readiness rebuilding efforts and evaluate progress toward achieving the identified goals."[5] Testimony from the GAO in February 2020 sustains this tone, lauding the Department of Defense's progress as it develops "metrics to assess progress toward readiness recovery goals that include *quantifiable deliverables at specific milestones* [emphasis added]."[6]

In view of the above, Army Regulation (AR) 220-1, *Army Unit Status Reporting and Force Registration—Consolidated Policies*, endows the USR with an unsurprisingly quantitative structure. It comprises four measured areas: personnel (the P-level), equipment on-hand (the S-level), equipment readiness (the R-level), and the unit training proficiency (the T-level) (see figure 1, page 151; and figure 2, page 152). With the exception of the T-level, the same basic math governs all: divide what the reporting unit has (whether number of medics or number of serviceable grenade launchers) by what that unit ought to have. The ranking in each category is uniform and numeric: a level "1" (such as an R-1) indicates the highest readiness level in that measured area, and a "4" the lowest (such as R-4).[7]

This discussion will focus on the question of equipment on-hand (the S-level) and equipment readiness (the R-level). It is in these measured areas where the USR is most rigid and quantitative, and it is where the metrics chosen least reflect the outcome that the report aspires to measure.

As mentioned, the math at face value is straightforward. The denominator for equipment on-hand is what the Army has decided that a reporting unit must have, recorded in what is formally known as the modified table of organization and equipment (MTOE). The numerator is what appears on the unit's property books; it is a digital record of equipment existent for that unit.[8]

The denominator for equipment readiness is what is on hand, and the numerator is the quantity tracked as "fully mission capable" in the Army's digital maintenance records. According to regulation, for a piece of equipment to be fully mission capable, it must pass a "preventative maintenance checks and services" inspection without failing a single "not ready if" bullet. The resultant percentage is often called the operational readiness rate, or OR rate.[9]

This sanitized approach obfuscates the manipulation that can and does occur to ensure these basic fractions yield figures between .9 and 1.00. This warping of organizational behavior is the inevitability of Muller's metric fixation.

The Unit Status Report as Metric Fixation

Muller explains metric fixation as the overreliance on transparent, quantified measurements to capture and incentivize an organization's performance; it is also the persistence of this overreliance despite myriad negative consequences. Of the negative consequences Muller inventories, the USR most obviously induces the following in reporting battalions across the Army: goal displacement, short-termism, time burdens, innovation aversion, and degradation of work.[10]

Goal displacement. If we take readiness to be the Army's number one priority (or goal), then goal displacement is the most pernicious consequence of the USR as it definitionally displaces readiness. Robert K. Merton, a founding father of sociology, defined goal displacement as when "an instrumental value becomes a terminal value."[11] Professors W. Keith Warner and A. Eugene Havens elaborated in a seminal 1968 article that among goal displacement's chief causes were "records and reports submitted to other echelons of the organization or to the sponsors, the public, or clients. These tend to report concrete 'statistics,' or case examples, rather than intangible achievement."[12] This academy-speak might translate into military-speak by simply saying that the USR makes the Army a self-licking ice cream cone.

Goal displacement in the measured area of equipment readiness (R-level) occurs as battalions grow more concerned with *reporting* equipment serviceable, such as vehicles, than with fixing equipment. The

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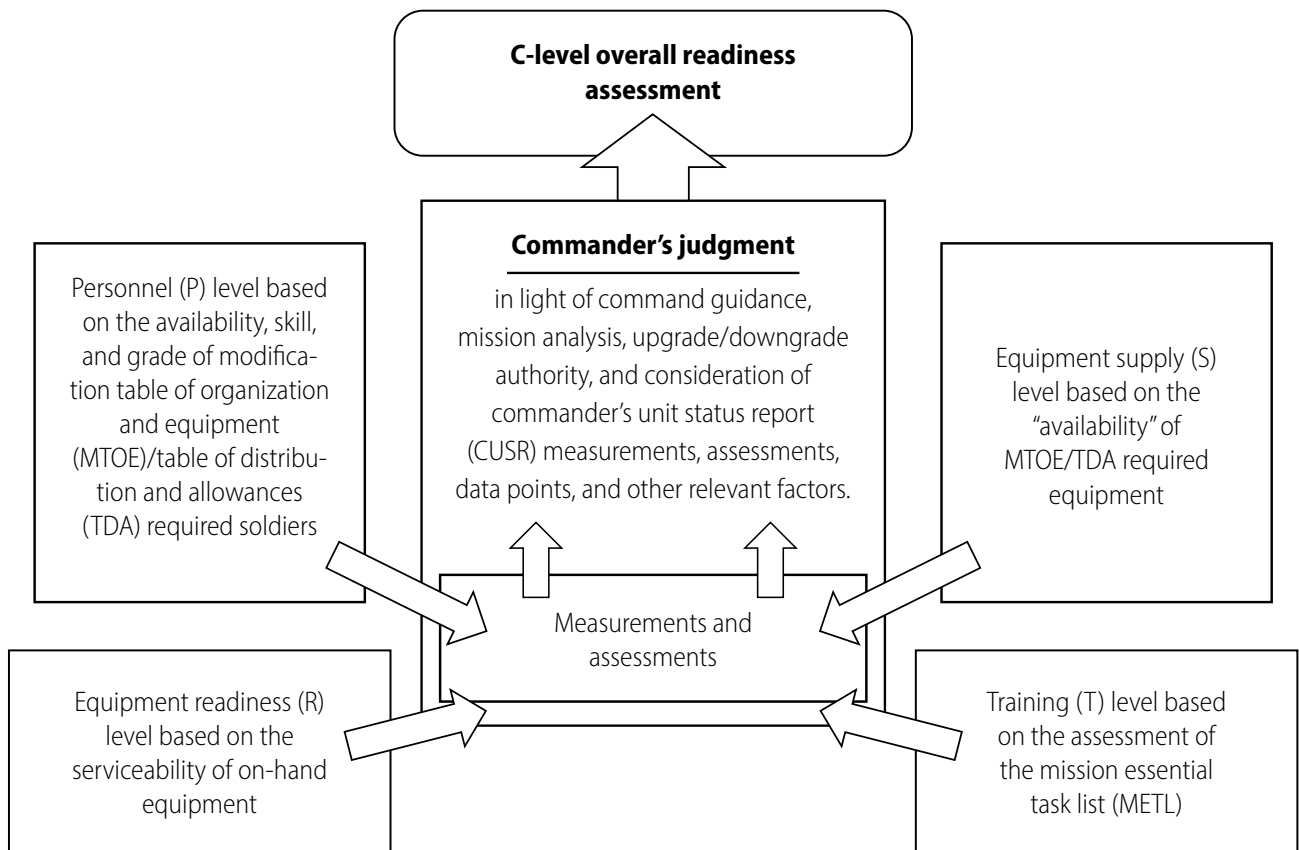
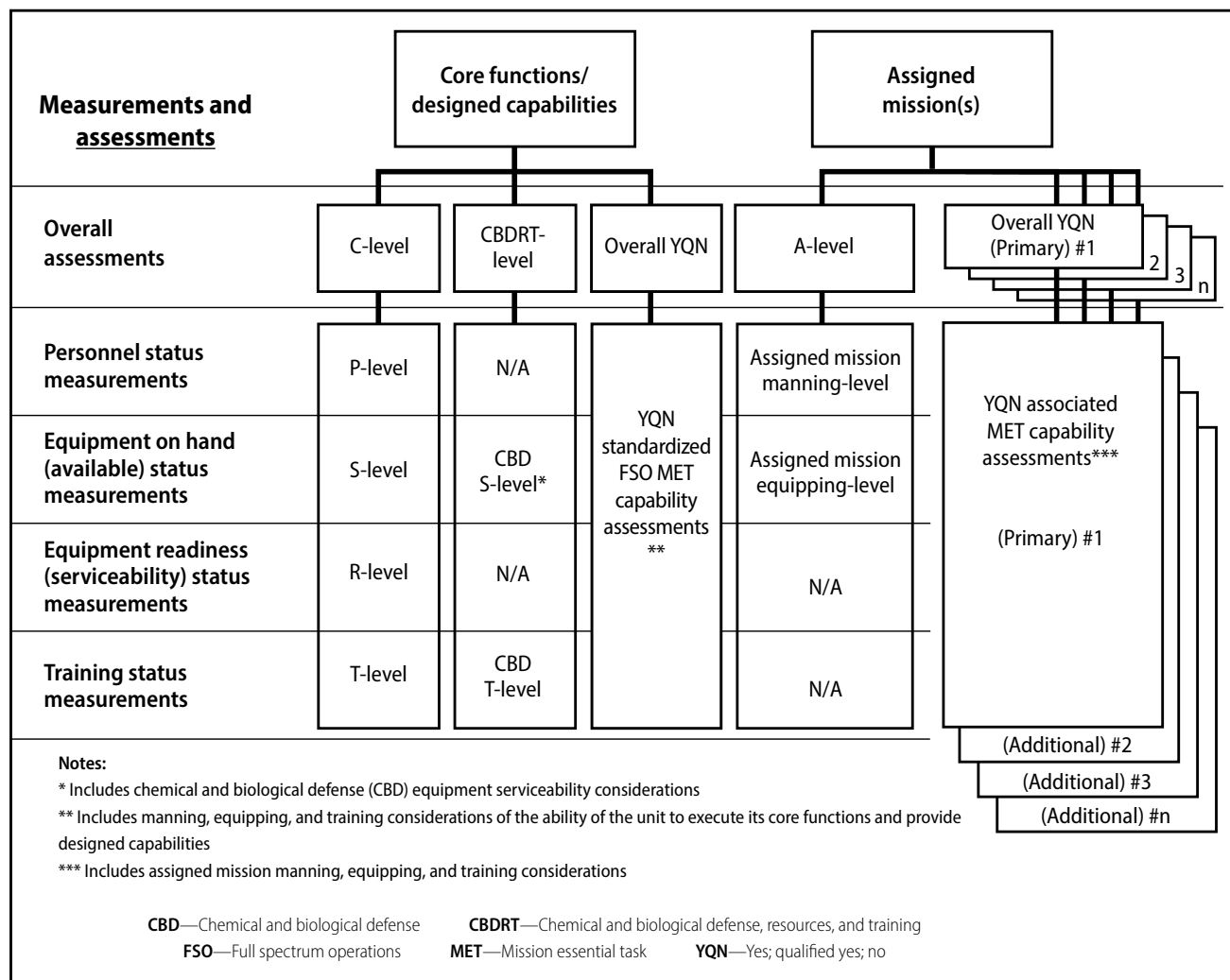## Figure 1. Army Methodology for Overall Unit Readiness Assessments

perversion of maintenance that results is a familiar story to anyone who has worked in an Army motor pool.

A common illustration is as follows: broken vehicles are not marked as broken in the Army's digital database (a process known as "deadlining") until the unit's maintenance section has diagnosed the issue with the vehicle and identified what parts must be ordered to fix it. Units delay reporting because it reduces the amount of time the vehicle is deadlined, thereby decreasing the likelihood it is deadlined during a USR reporting window. Because maintenance sections are often stretched for time, vehicles that cannot roll or start at all are reported for weeks if not months as serviceable simply because their issues have not yet been diagnosed.

Some units go even further to avoid an unbecoming R-level, displacing maintenance (and therefore readiness) in the process. A maintenance section in an armored formation, for example, might report only

a single inoperable tank despite several others being broken. All repair parts for all tanks are then ordered under that single tank's serial number. Upon receipt of the repair parts, the maintenance leadership divvies them up to the many other inoperable but unreported vehicles. This way, the digital database through which parts are ordered reports only one broken tank, instead of five or six per company. Not only does this produce an inaccurate report, but it also confuses maintenance. Leadership routinely forgets which widget was ordered for which unreported tank, resulting in redundant orders, lost parts, and inevitably, toothless tank companies.

Yet another painful example of goal displacement induced by USR involves what regulation calls "pacing items." AR 220-1 defines pacing items (colloquially called "pacers") as "major weapon systems, aircraft, and other equipment items that are central to the organization's ability to perform its designated mission."[13] A

Measurements and assessments	Core functions/ designed capabilities			Assigned mission(s)		
Overall assessments	C-level	CBDRT-level	Overall YQN	A-level	Overall YQN (Primary) #1 2 3 n	
Personnel status measurements	P-level	N/A	YQN standardized FSO MET capability assessments **	Assigned mission manning-level	YQN associated MET capability assessments***	
Equipment on hand (available) status measurements	S-level	CBD S-level*		Assigned mission equipping-level	(Primary) #1	
Equipment readiness (serviceability) status measurements	R-level	N/A		N/A		
Training status measurements	T-level	CBD T-level		N/A	(Additional) #2 (Additional) #3 (Additional) #n	

Notes:

* Includes chemical and biological defense (CBD) equipment serviceability considerations

** Includes manning, equipping, and training considerations of the ability of the unit to execute its core functions and provide designed capabilities

*** Includes assigned mission manning, equipping, and training considerations

CBD—Chemical and biological defense **CBDRT**—Chemical and biological defense, resources, and training

FSO—Full spectrum operations **MET**—Mission essential task **YQN**—Yes; qualified yes; no

(Figure from Army Regulation 220-1, *Army Unit Status Reporting and Force Registration—Consolidated Policies*, 15 April 2010, https://armypubs.army.mil/epubs/DR_pubs/DR_a/pdf/web/r220_1.pdf)

Figure 2. Commander's Unit Status Report Metrics

pacer for a medical unit might be a field litter ambulance; for a cavalry squadron, it might be its anti-tank missile systems and the vehicles on which they are mounted. The pacer OR rate is therefore in theory a reliable measurement of a unit's ability to fulfill its mission, and it enjoys weight in the overall R-level calculus. Battalions, desirous of reporting themselves ready, consequently prioritize pacer maintenance.

The issue is that pacer OR rates are poor indicators of readiness and not just because serviceability rates lend themselves to manipulation. Pacers are also often far from the only equipment essential to fulfill a mission, or they are so numerous that each individual pacer has less impact on the mission than scarcer nonpacer equipment types. For example, a battalion may have twenty anti-tank vehicles, all of which are pacers, but only two command-and-control vehicles, neither of which are pacers. But because pacers enjoy disproportionate weight in the USR, any self-interested battalion prioritizes the maintenance of the twentieth pacer over the first command-and-control truck. Thus, command-and-control vehicles rust in the motor pool while twenty directionless anti-tank trucks roam the battlefield, but as far as the USR is concerned, the unit is combat ready. The goal of reporting a healthy pacer OR rate has displaced the goal of being ready.

Goal displacement abounds in the measured area of equipment on-hand (S-level) as well. Recall that S-level

measures what equipment units have on hand against what the MTOE dictates they should have. In theory, MTOE captures all that a unit needs to fulfill its mission. But inevitably, well-meaning authors of MTOE at Training and Doctrine Command (TRADOC) as well as the approval authority at the Deputy Chief of Staff G-3/5/7 office either include too much or too few of any given item in view of the unit's assigned mission.

out the ordering of new parts altogether. Units do so both because of the quick turnaround (one need not wait for a part to arrive from a distant depot if one rips a part off of a neighboring truck), and also because if the maintenance section need not *order* the part, it need not report the truck as broken, which would spare the USR. Meanwhile, armament sections learn not to order parts for broken machine guns until after USR report-

> " Armament sections learn not to order parts for broken machine guns until after unit status report reporting windows close, delaying weapons repair by months to avoid flagging them as inoperable. "

In pursuit of a high S-level, units forsake actual equipment needs for a good report. These monthly campaigns see much-needed equipment transferred off the property books while supply teams bloat books with obsolete or unused equipment in order to meet MTOE quotas. Antiquated encryption tape readers remain while desperately needed high frequency radios or infrared optics disappear. The various forms of appeal, whether an "operational needs statement" or a "reclamation," prove so cumbersome and lengthy that staffs rarely pursue them except in the direst cases. The goal of a high S-level displaces the goal of a well-equipped unit.

Short-termism. Related to goal displacement is short-termism. Muller defines short-termism in *The Tyranny of Metrics* as "diverting resources away from their best long-term uses to achieve measured short-term goals."[14] And because USR reports recur for battalions monthly, they disrupt long-term strategies for the maintenance, acquisition, and retention of equipment in pursuit of a good monthly read. This adverse effect of metric fixation runs precisely contrary to the stated 2018 *National Defense Strategy*, which emphasizes a pivot toward long-term readiness.[15]

Examples are ubiquitous in the measured area of equipment readiness. Similar to the tank example above, battalion maintenance sections cannibalize long-suffering vehicles in order to repair newly downed pacers before the reporting windows close, resulting in what the aviation community calls "hangar queens"—sacrificial vehicles used as spare-part trees. This process cuts

ing windows close, delaying weapons repair by months to avoid flagging them as inoperable. Across all types of equipment, leadership rushes repair jobs or seeks out the easiest fix, undermining long-term serviceability and sometimes further damaging the equipment in the process. The result is an army of highly reactive, chaotic maintenance programs and duct-taped fleets.

Short-termism similarly dominates the measured area of equipment on-hand. Units dedicate time and effort to acquiring items they do not need in order to meet MTOE quotas, even with the knowledge that the obsolete equipment will fall off the MTOE the following fiscal year. Staffs will in turn direct battalions to give away needed equipment that will soon be on their MTOE simply because in that month the item is technically excess. Even worse, units will not turn in irreparably broken equipment (a process known as "coding out") for fear that the loss will drop them below the MTOE-prescribed quantity, opting to retain unserviceable property and thereby precluding the fielding or even requisition of a functioning replacement.

Amidst all this short-termism, "recovery" becomes something of a four-letter word. To recover from training rotations requires the deliberate deadlining and coding out of equipment, processes that, for a host of good reasons, require time. Soldiers must inspect equipment, mechanics troubleshoot it, and clerks order repairs. Leaders must document catastrophic damage, officers investigate it, logisticians review it, and property book officers direct replacements. When handled
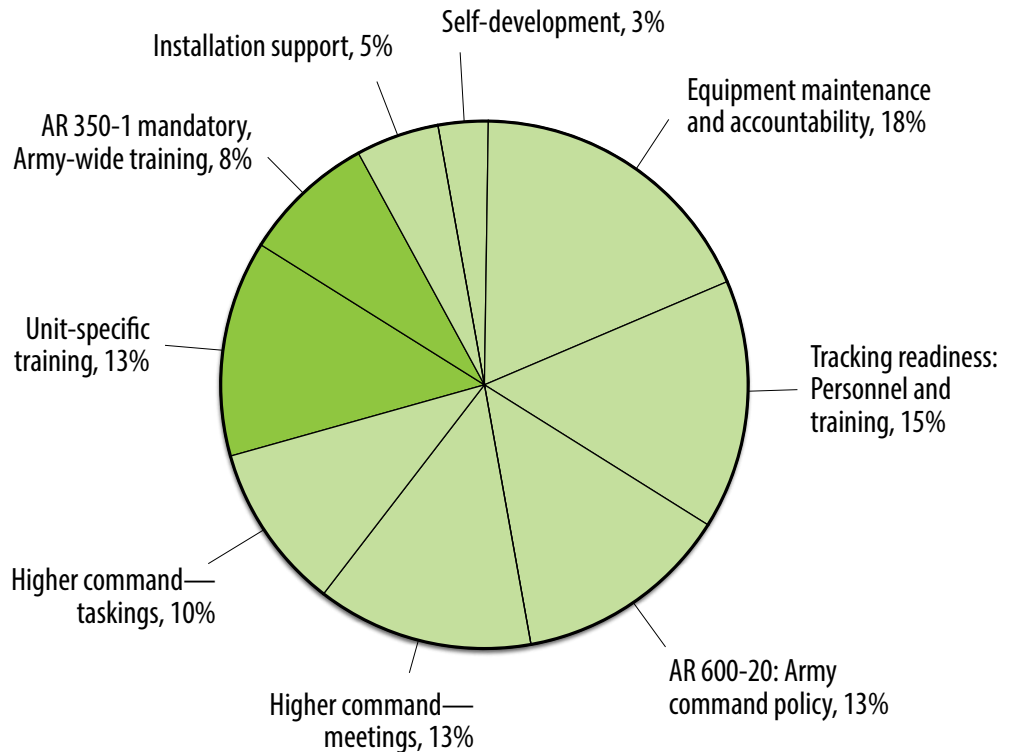
properly, issues identified during recovery take weeks if not months to resolve. It is the work of real readiness. But the price of that due diligence is at times one, if not several, unfavorable USRs, and units are too often unwilling to pay. The purpose of recovery becomes to report it complete, and all the while, units grow weaker.

Innovation aversion, time burdens, and degradation of work. In a series of articles this past summer, Gen. Stephen Townsend and his three coauthors called for a reinvigoration of mission command, the Army's allegedly faltering approach to command and control. To do so, they wrote that leaders must appreciate that "developing competence, establishing mutual trust, and learning to operate from shared understanding does not start in the field. It starts in the unit area."[16] In doing so, they echoed the chairman of the Joint Chiefs of Staff, Gen. Mark Milley, who in 2017 called for mission command's practice "even on daily administrative tasks you have to do in a unit area."[17] Unfortunately, the USR, perhaps the Army's most quotidian administrative garrison task, plays something of a perfect foil to mission command. Its metric fixation asphyxiates several of mission command's core tenets: disciplined initiative, risk acceptance, mutual trust, and shared understanding.

Most obviously, the fragility and frequency of the USR discourages innovation, or "disciplined initiative," and its twin, "risk acceptance," that might otherwise increase readiness. The dearth of innovation at the top

of the Army's food chain has received due attention, perhaps most famously from former Lt. Col. Paul Yingling in a 2007 article.[18] But metric fixation so deadens innovation at the tactical level that it is no surprise little rises to the level of strategy. Untested methods, whether a change to motor pool management or an alternate approach to equipment distribution, enjoy a slim chance of fruition as they threaten USR calculus month to month.

Self-development, 3%
Installation support, 5%
AR 350-1 mandatory, Army-wide training, 8%
Unit-specific training, 13%
Higher command—taskings, 10%
Higher command—meetings, 13%
AR 600-20: Army command policy, 13%
Tracking readiness: Personnel and training, 15%
Equipment maintenance and accountability, 18%

Note: Sections highlighted are training-related tasks and sum to 21 percent of estimated time per quarter.

(Figure from RAND Corporation, *Reducing the Time Burdens on Army Company Leaders*, 2019, https://www.rand.org/content/dam/rand/pubs/research_reports/RR2900/RR2979/RAND_RR2979.pdf)

Figure 3. Company Leaders' Estimates of Personal Time Devoted Per Quarter to Job Tasks

Would-be innovators are told instead to wait until their career's distant future when, if they perform well enough, they might enjoy influence over the stratospheric decisions that inform doctrinal questions, MTOE, USR, or otherwise. Though there is much to be said for earning one's place, ideas expire with time, and many exit the profession of arms before entering positions of influence in search of a more enterprising culture.

The USR and its pruning voraciously consumes another resource that serves a battalion's mission: leaders' and soldiers' time. The frequency and high stakes of USRs demand of battalion and brigade staffs days of data compilation that might otherwise be spent planning training. Company commanders reported in a 2019

> "The unit status report, perhaps the Army's most quotidian administrative garrison task, plays something of a perfect foil to mission command. Its metric fixation asphyxiates several of mission command's core tenets: disciplined initiative, risk acceptance, mutual trust, and shared understanding."

RAND study that they devoted a full 15 percent of their time to "tracking readiness," second only to USR-adjacent "equipment maintenance and accountability." Both outstripped the 13 percent of each quarter commanders professed dedicating to "unit-specific training." Ironically, soldiers shared that a common means of coping with the time burden was to report readiness metrics inaccurately (see figure 3, page 154).[19] This spells doom for mission command's "shared understanding," as staffs and commanders dedicate to data's collection and grooming the attention that mission orders desperately need.

Lastly, least measurable (and therefore, from a metric-intensive perspective, least credible) but just as tragic is what Muller calls the degradation of the work. Implied in the hyperquantification and rigidity of the USR is an organizational distrust of the reporting unit, and therefore the soldiers who constitute it. This distrust is not lost on those soldiers, and it invites them to respond in kind. "Mutual trust" fails. The bedrock of Army morale—the nobility of its mission—crumbles as the mission is reduced to a series of reported fractions.

The Blame Game

Self-righteous blame invites obstinate defense, and both are obstacles to productive discussion. As Leonard Wong and Stephen Gerras wrote in the 2015 report *Lying to Ourselves: Dishonesty in the Army Profession* (from which this piece draws much), "with such a strong self-image and the reinforcing perspective of a mostly adoring American society," Army leaders often

"respond with indignation at any whiff of deceit."[20] Discussions thus falter before they begin as all retreat to their respective corners.

Fortunately, organizational theory bypasses these obstacles convincingly. It is not because of the individual but rather because of the *devaluation* of the individual that such perversions of organizational behavior occur. The system of readiness reporting dismisses individual judgment in favor of metrics so much that all agency, informed by integrity or any other Army value, dissipates. As George Kennan wrote in 1958 when discussing the expanding administrative state and its managerial malaise,

> The premium of the individual employee will continue to lie not in boldness, not in individuality, not in imagination, but rather in the cultivation of that nice mixture of noncontroversialness and colorless semicompetence that corresponds most aptly to the various banal distinctions of which, alone, the business machine is capable.[21]

So, instead of stacking structural incentives impossibly high, diametrically opposing the integrity of the individual, and then blaming the individual for systemic failure, the resolution lies in structural reform. This approach enjoys the dual advantages of preempting the defensiveness Wong and Gerras encountered and more credibly promising results.

Recommendations

To critique metric fixation is not, as Muller repeatedly disclaims, to protest the use of metrics altogether. Similarly, to decry the pernicious effects of the USR is not to deny the need for readiness reporting and the use of metrics toward that end. The reform, not the scrapping, of reporting metrics and structure, promises

a reduction in goal displacement, short-termism, innovation aversion, time burdens, and degradation of work. This author acknowledges that the below recommendations are not equally feasible, and if executed improperly, fail to resolve the excesses of metric fixation.

To reduce goal displacement, one must close the gap between the stated goal of readiness and the metrics used to measure it. As the metrics employed by USR gravitate closer to actual drivers of readiness, the risk of the former displacing the latter would necessarily decrease. The massive effort units expend to reach the highest levels of readiness on USRs would therefore more efficiently ready them. A first step toward this end would be to better incorporate the judgment of reporting leadership, those closest to the capabilities of their formations. Rather than empowering them to "subjectively upgrade" overall readiness ratings (as AR 220-1 does now), which obscures rather than resolves metric fixation, reporting units ought have a larger role in the selection of what metrics capture readiness on the ground.[22]

Pacer designation is an example. Currently, TRADOC, in coordination with the Deputy Chief of Staff G-3/5/7 office, identifies pacers and accounts little for the nuanced relationship between equipment and units' assigned missions. This is understandable given the size of the force and the degrees of separation between everyday training and TRADOC. To close this gap, a regular (perhaps biennial) reassessment that solicits division or even brigade input regarding what ought to be considered a pacer would make pacer OR rates more meaningful.

The same practice might be employed to adjust the MTOE. Just as reporting units have unique insight into what equipment most contributes to their mission in the case of pacers, so too do they have a strong understanding of what type and quantity of equipment they use to fulfill their missions. Permitting divisions or brigades some role in the authorship of their MTOEs would better marry MTOE materiel with the needs of the unit.

One risk of such a practice would be mission creep. As units and their commanders acquire more influence over what the Army deems essential, they may functionally invent mission essential tasks to warrant desired widgets, bringing at times anomalous personal experience in contest with doctrine. The Army would thus have to maintain a high but passable bar for what equipment supports only *existing* mission essential tasks.

A second obvious objection to unit partial authorship of either MTOE or pacer designation might read as follows: every unit setting its own standard reduces the term "ready" to something just shy of meaningless as each unit proffers its own (perhaps self-serving) definition. The resultant amalgam of definitions cripples the military bureaucracy's ability to manage. Only strict standardization renders the force legible, whether to the Pentagon or to Congress.

How to negotiate a balance between the dual risks of harmful standardization and unmanageable chaos is explored deeply in the book *Seeing Like a State* by James C. Scott. In it, Scott relays among many examples the challenge Napoleonic France faced as it sought to standardize myriad local measurement codes: "Either the state risked making large and potentially damaging miscalculations about local conditions, or it relied heavily on the advice of local trackers—the nobles and clergy in the Crown's confidence—who, in turn, were not slow to take full advantage of their power."[23] Scott notes attempts to strike the balance, such as those by Deputé Claude-Joseph Lalouette, failed to win requisite support for fear of too empowering the landowners.[24] This concern does not apply to the question of readiness reform, for instead of thousands of landowners with ulterior motives, the Army needs to only solicit input of several dozen BCTs supportive of its mission.

Decreasing the frequency of USRs to a biannual or even annual iterations would also assuage many of its ill effects. There is no great advantage to monthly reports but many costs, only some of which have been discussed. Muller has summarized the damage done by quarterly earnings "hysteria" to long-term strategy in the financial sector, and the same basic critique applies to the Army.[25] Less frequent reports would permit units some actual recovery periods between training events without the disincentive of ugly USR reports. Less frequent reports would reduce the pressure on leaders to prioritize readiness metrics over deliberate training progressions. Those leaders would certainly tolerate more programmatic maintenance.

Lastly, lengthening the periods that commanders command to thirty-six months or longer has the potential to preempt the short-termism USRs engender. Often, under pressure to produce short-term results, commanders undermine or outright dismantle systems designed to sustain readiness in the long view because

those systems do not move at the speed of the USR. This practice survives because few commanders command long enough to reckon with the fall out of this behavior. Extending command timelines would force a consideration of long-term effects that are otherwise a problem for the anonymous successor.

The above temporal fixes reduce short-termism. A less frequent USR disrupts long-term planning less frequently. A leader with more time in the driver's seat similarly plans for the longer term. And all of the above empower leaders and soldiers within reporting units. The time burden shrinks as reporting grows less frequent. The risk of innovation lessens, and innovation's long-term

benefits assert themselves. As the organization solicits input and metrics of performance acquires meaning, work regains its esteem and morale increases. Put another way, it promises a reinvigoration of mission command.

The need for quantifying readiness will never go away, nor should it. The accessibility of hard numbers and their simplicity render the military's sprawling bureaucracy manageable. It importantly also reduces the opacity of the military to oversight entities like the House Armed Services Committee's Subcommittee on Readiness. But unless the USR undergoes reform, it will neither ready us nor convey how ready we are, to the public or ourselves. ■

Notes

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Sailing True North

Ten Admirals and the Voyage of Character

Adm. James Stavridis, U.S. Navy, Retired, Penguin Press, New York, 2019, 336 pages
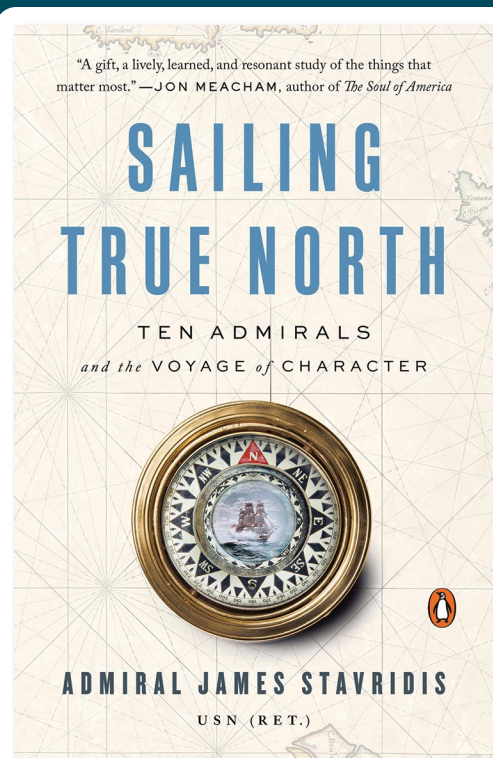
Lt. Col. John H. Modinger, PhD, U.S. Air Force, Retired

In *Sailing True North: Ten Admirals and the Voyage of Character,* retired Adm. James Stavridis—a two-time U.S. geographic combatant commander, former NATO supreme Allied commander, and prolific writer throughout his entire naval career and beyond—offers up another thoughtful and expansive book that reaches into history to demonstrate timeless virtues desperately needed in this time of complex, vexing problems coupled with the accelerating speed of transformation on so many fronts. It is a valuable and easy-to-read primer on ten individuals—famous or infamous—who, through their exercise of character and leadership, or at times, lapses on those counts, provide examples the reader can juxtapose with contemporary dilemmas and challenges to find a better way forward. The individuals' failures are particularly worthy for what they may convey, and the book serves to underscore those failures and show they are often just a prelude to greatness.

These chronological accounts span more than two millennia and include the likes of

- Themistocles (ancient Greece),
- Zheng He (Ming Dynasty, China),
- Sir Francis Drake (explorer and pirate),
- Horatio Nelson (Britain's foremost naval hero),
- Alfred Thayer Mahan (the bookish visionary who had little time for driving ships),
- Lord Jacky Fisher (who, as Stavridis puts it, was a "revolution in a bottle, and the taste could be bitter indeed despite being sugared with a great deal of personal charm when he chose to deploy it"),
- Chester Nimitz (Pacific Fleet admiral during World War II),

- Hyman Rickover (a bureaucratic virtuoso and angry visionary for the potential of atomic energy within the Navy),
- Elmo Zumwalt (chief of naval operations, 1970–74, and a reformer amidst the Vietnam debacle and serious domestic social upheaval), and finally,
- Grace Hopper (a pioneer at the dawn of the computer age).[1]

Stavridis's writing benefits immensely from his innate talents and a rich, firsthand repository of lessons learned. He has a deft command of the language; a gift for balance—neither diving too deeply (so as to convolute the larger message) nor remaining too shallow (that the intended broader message remains cryptic); an evident, firm grasp of history writ large; and a vast array of experiences logged over decades at sea leading sailors and marines, which he is able to marry to these historical case studies, providing useful, contemporary parallels in a much-changed world.

The book has value far beyond the nautical realm. The character traits and leadership traits discussed within the pages are transferable far beyond the sea domain. Living in the age of the internet and the explosion of media sources (with varying agendas and commitments to the truth), the lines between fact and outright falsehoods have blurred so much that we are compelled to canvas a variety of sources if we are to have any reasonable hope of getting close to objective reality. When we are caught up in a maelstrom of competing, often subjective narratives where information is purposely "weaponized" to sow discord and confusion among people or toward leaders and institutions, it is hardly surprising that so many people of integrity forgo national service—an ancillary theme of sorts running throughout Stavridis's volume.

Truly gifted leaders, or potential leaders who are deterred from national service or from reaching for the next rung on the leadership ladder because they think the costs (to self, to family, to reputation) outweigh the gains represent a national tragedy. It is against this backdrop and others that Stavridis wrote the book. It is not just a message for military readers, but it is also a study in character that can carry great consequences to be leveraged by anyone seeking to lead effectively and with character in stressful situations. It is intended to show that despite adversities, these historical figures made a lasting difference (if not *the* difference between victory and defeat, often in the face of considerable unknowns, hardship, obscurity, or gross recriminations). It is, in a sense, a call to duty.

By complementing these ten studies in character as the book closes, Stavridis gives us a "top ten list" of qualities he believes distinguish truly superlative leaders. Admittedly, many of the things he offers up have been said many times over. While he echoes those other cries, he does so with a palpable sincerity and credibility derived from long service to ideals bigger than himself. Stavridis identifies several critical traits effective leaders must possess in abundance.

Creativity. To achieve it consistently, one has to have "a willingness to embrace the new despite the difficulties and challenges of doing so."[2] Creativity gives birth to innovation and progress.

Resilience. In the face of adversity, Stavridis argues, "It is insufficient to be capable and good when things are going well, because sooner or later they will go badly."[3]

Humility. He nails it when writing, "So often the evil doppelganger of success is arrogance." And he beseeches us to avoid it like the plague.[4]

Balance. This one routinely gets lots of rhetoric but less traction in our lives. I, myself, have been guilty of this "sin" on too many occasions, and it cost me. Whether ambition or fixation on something other than the true, central importance of family and friends, "struggling with [this one] is an act of character for us all."[5]

Honesty. That is, "being truthful, no matter the cost."[6]

Empathy. Exemplifying trait number five above points out the importance of *empathy*, acknowledging that most of us are exceedingly self-centered. Stavridis admits he has to fight the tendency within himself, noting that the world around us—and maybe our genetics—wire us that way. We have to look at the world through a wider aperture. Unfortunately,

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many people who are very successful lack the ability to express this. Yet for all of us, building up a reservoir of empathy requires a lifetime.

Justice. The message Stavridis offers is more nuanced than one might expect. His sense of justice, like so many of these traits, evolved and grew over time and through the accumulation of knowledge and experience. It is intimately related to the empathy trait mentioned above. For Stavridis, justice involves recognizing the shortfalls around us, where our mantra or rhetoric outstrips the reality on the ground, at least for some. As an example of what he means here, he says he tries to "think what it must be like to be a young black man in poverty, with a very limited set of choices, under constant supervision by law enforcement. How do we address that?" Stavridis quickly clarifies by asserting, "This is not to say our society is fatally or even deeply flawed."[7] To that point, he leans on Winston Churchill's famous quip that "[d]emocracy is the worst form of government … except for all the others."[8]

Decisiveness. One can only admire the problem so long. Dithering back and forth may have its benefits in a certain context but is often inappropriate. It also skirts the uncomfortable—having to decide. In the book, Stavridis relates a story of when he was in command and had it not been for the decisiveness of his navigator—not him—his career would have been finished by running the ship aground despite assurances from the local pilot steering the boat toward its anchorage that all was well in hand.

Determination. Here, Stavridis draws once more from Winston Churchill, and Churchill's tenacity in the face of the German onslaught in 1941 when Britain was the last holdout (the United States was not yet involved in World War II), when he says, "Never give in, never give in, never, never, never, never—in nothing, great or small, large or petty—never give in except to convictions of honor and good sense."[9] We can all admit that drawing that line is not always easy, and sometimes we can become obstinate. However, more often than not, determination and an unwillingness to quit when times are tough is essential to effective leadership.

Perspective. We must always be mindful: "[W]e are but sailing in a tiny ship on a boundless sea … [the] perspective [of] which leads to a sense of humor and the gift of not taking ourselves too seriously. … [We] must understand that eternity is rolling out there in front of us, and our time is brief. … Character is knowing that we are decidedly not eternal, and that we should live our lives in the best way we can."[10]

The book was a pleasure to read; each chapter was nimble and interesting. The author has to be complimented for corralling such a diverse group of characters spanning so much time together in one place. He makes the history come alive and continues to be a shining example of the warrior-scholar we should strive to emulate as guardians of the military profession and military ethos. This book is a worthy addition to any collection. ■

Notes

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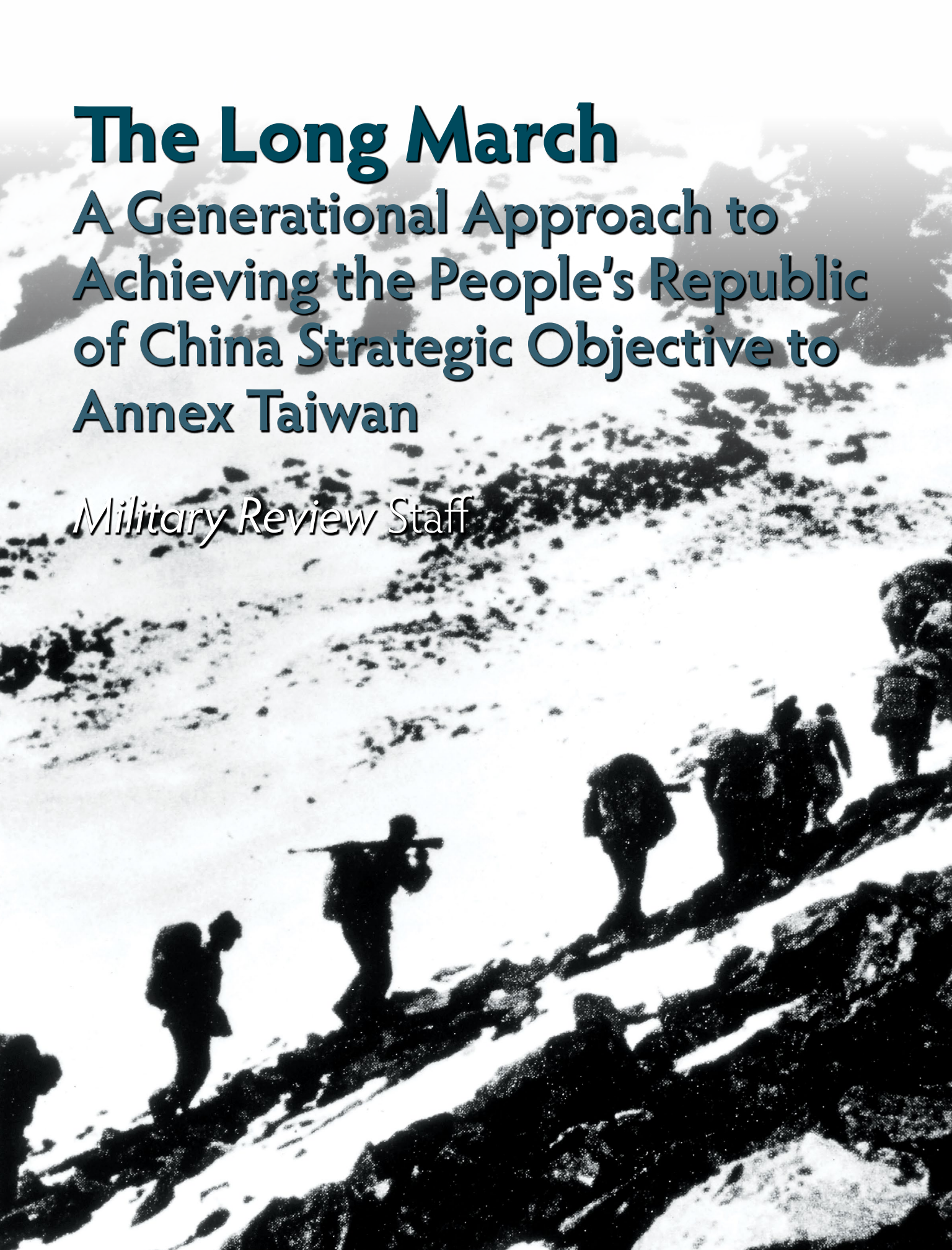
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The Long March

A Generational Approach to Achieving the People's Republic of China Strategic Objective to Annex Taiwan

Military Review Staff

Editor's post script: "The Long March" is a frequently invoked phrase in socialist literature that has deep metaphorical significance to the global communist movement in general and to Chinese Maoist communists specifically. The phrase literally refers to the epic journey of the Chinese Communist army, which broke through encirclement by the Nationalist Chinese Army (Kuomintang) in October 1934 and survived by escaping to hiding places in northern China under the leadership of Mao Tse-tung. The trek lasted over a year and covered more than four thousand miles. It was accomplished at the cost of great hardship and suffering, and required great forbearance to complete. Today the phrase "The Long March" is frequently invoked by the PRC as a meaning-packed symbol and supercharged mantra to stress the need for complete devotion to the cause of communism, willingness to endure extreme hardship, and—above all—indefatigable persistence and patience in single-minded pursuit of national objectives that might require decades to accomplish.

In contrast to the symbolism of the Long March, the remnants of the Republic of China's government

After visiting the Marshall Islands and Tuvalu during her tour named "Sustainable Austronesia: Working Together for a Better Future—2017 State Visits to Pacific Allies," Taiwan's President Tsai Ing-wen makes her last stop at the Solomon Islands 2 November 2017 to meet with Prime Minister Manasseh Sogavare. Under pressure from communist China, the Solomon Islands broke ties with Taiwan in September 2019. (Photo courtesy of Wikimedia Commons)

Previous page: During The Long March of 1935, Red Army soldiers cross a mountain in Western China. (Photo by JT Vintage, Glasshouse Images/Alamy Stock Photo)

fled mainland Chain to the island of Taiwan in "The Great Retreat" to escape the advancing Communist People's Liberation Army led by Mao Tse-tung. There the Kuomintang (Chinese Nationalist Party), under the leadership of Pres. Chiang Kai-shek, established what was envisioned as a temporary alternate government headquarters in anticipation of returning to mainland China to recover power

Nicaragua
Honduras
Belize
Guatemala
Haiti
Saint Kitts and Nevis
Saint Lucia
Saint Vincent and the Grenadines
Paraguay
Vatican
eSwatini
CHINA
Taiwan
Marshall Islands
Nauru
Palau
Tuvalu

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(Figure by Agence France-Presse. Source: Taiwanese Foreign Ministry, as of 18 May 2020)

Fifteen Remaining Nations with Diplomatic Ties to Taiwan

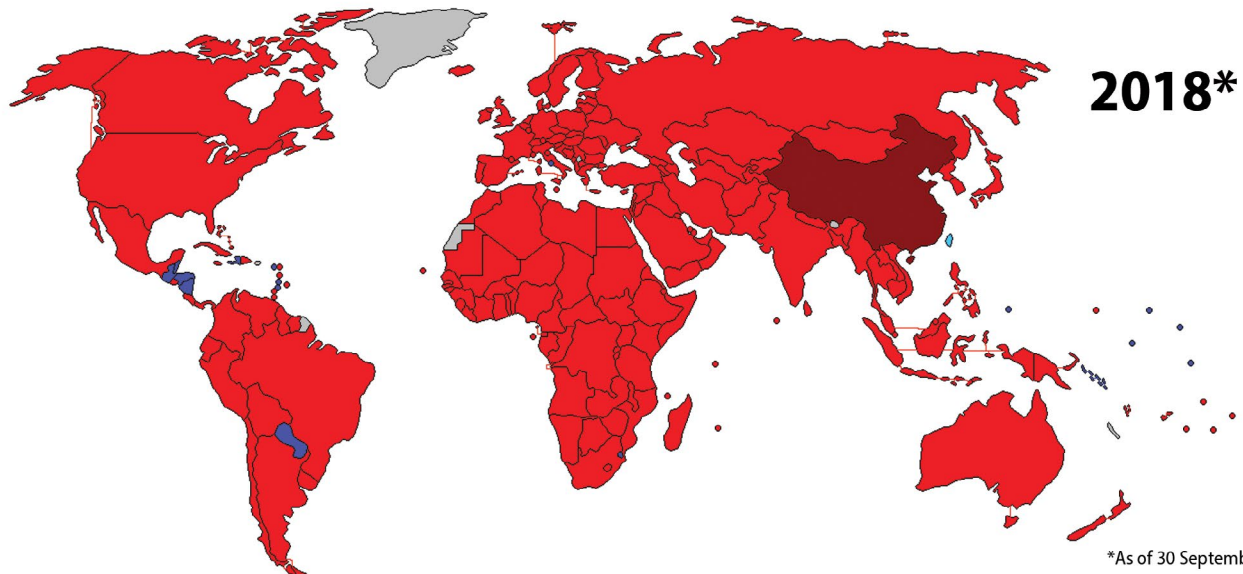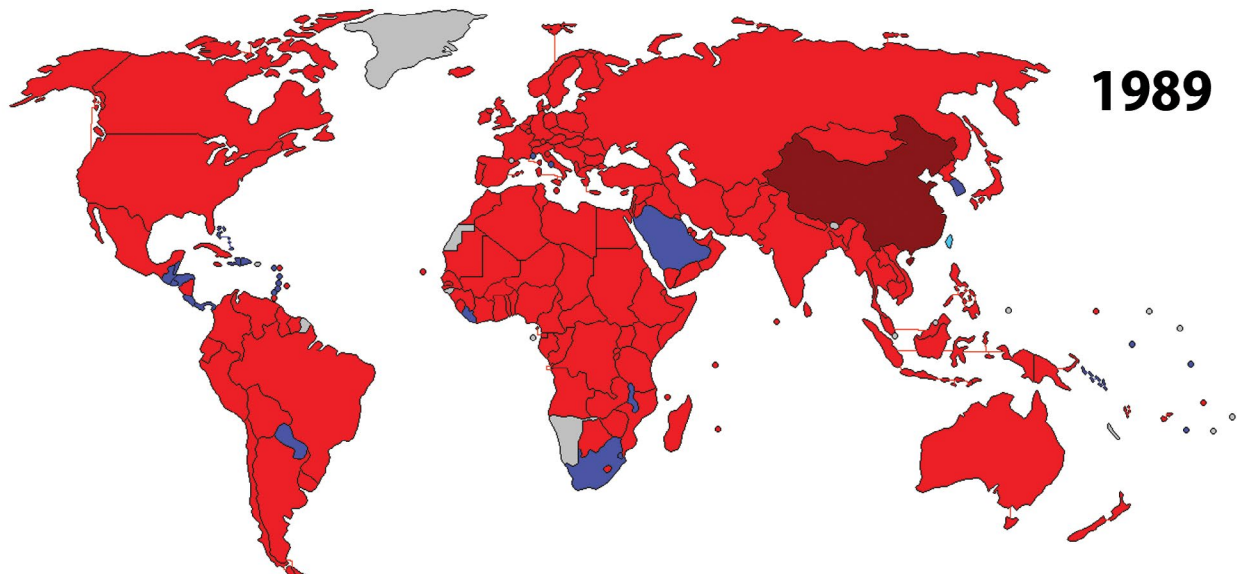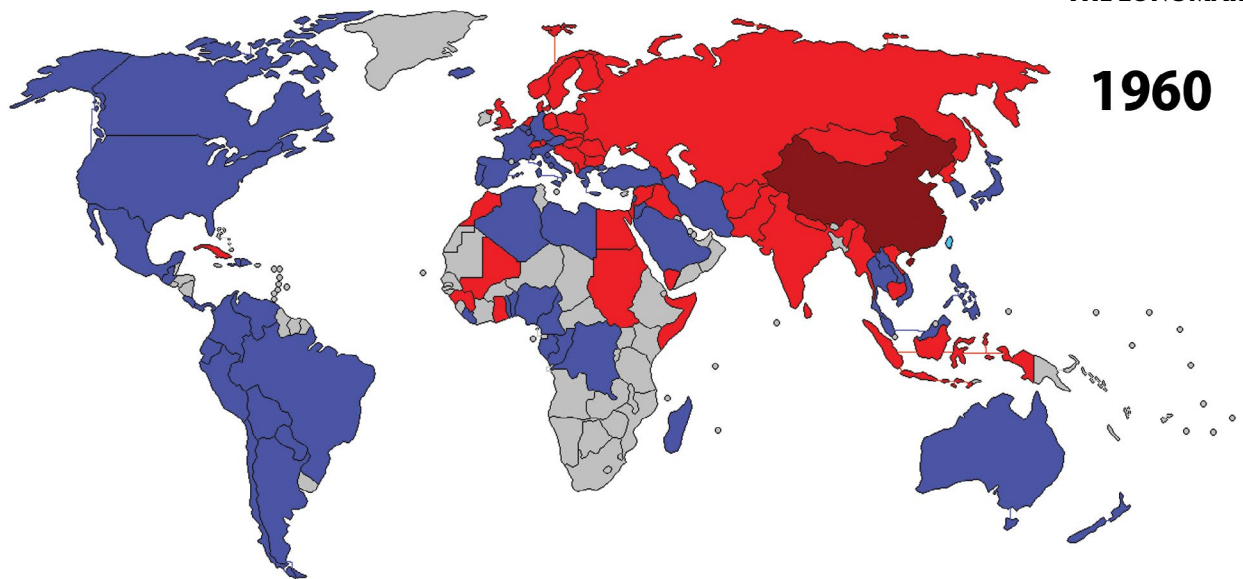China considers Taiwan a renegade province to be reunified by force if necessary

from the communist Chinese. Subsequently, though the dream of the Kuomintang returning to power in mainland China has gradually disappeared, the result has been that Taiwan evolved to be virtually an alternate country. Notwithstanding, recognizing that Taiwan as a separate entity that operates under a different system of governance will always pose a historical, psychological, and moral challenge to the legitimacy of communist rule in the eyes of the Chinese people broadly as long as it exists, PRC rulers have for decades prepared in many venues in anticipation of any emerging opportunity to annex Taiwan by force. In taking the long view, one of the major impediments to this quest identified by the PRC was the threat of pressure brought by world public opinion generated through the diplomatic ties Taiwan had with other nations, which might manifest itself at inconvenient times in such ways as votes against PRC aggression within the UN, pressure from adverse global media attention, and vulnerabilities produced by tenuous economic ties that could be easily severed. Consequently, the PRC

has for decades engaged in a dual pronged simultaneous economic and diplomatic "Long March" against Taiwan aimed at entirely isolating it from diplomatic recognition and economic independence from China for the explicit purpose of ensuring that there would be little if any global political or economic costs should the PRC take military action against Taiwan. The PRC has largely accomplished both objectives of this Long March. With regard to Taiwan's diplomatic standing in the world, the two figures provided illustrate that, where once Taiwan enjoyed diplomatic recognition and economic ties with many nations of the world, it now has formal diplomatic relations with just fifteen nations, most of which are small island countries in the eastern Pacific and the Caribbean. As a result, in the event of a conflict with the PRC, Taiwan would have little if any voice in such diplomatic forums as the UN and few diplomatic ties upon which to call for assistance. Of note, the PRC is continuing its aggressive diplomatic efforts to pressure or entice the remaining fifteen countries to cut ties with Taiwan. ■

1949

1971

2000
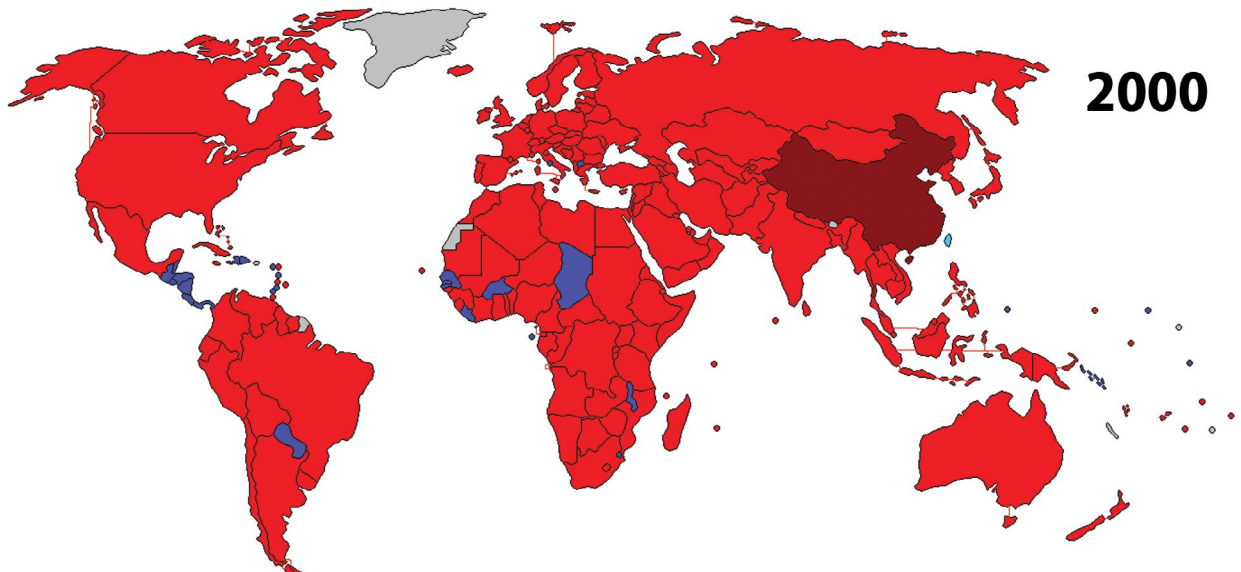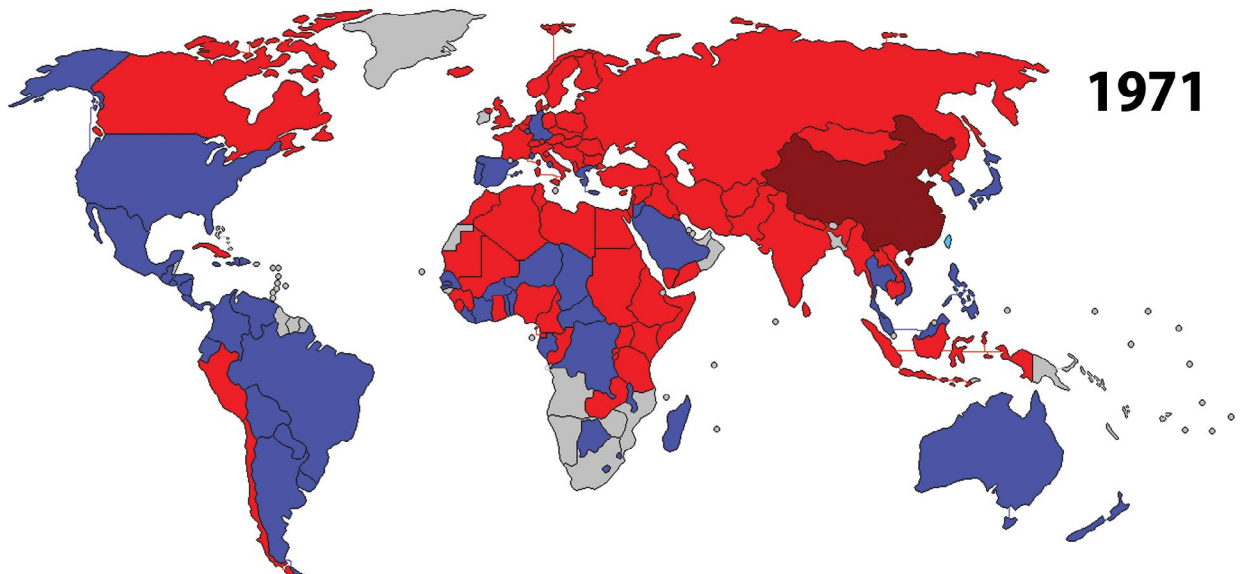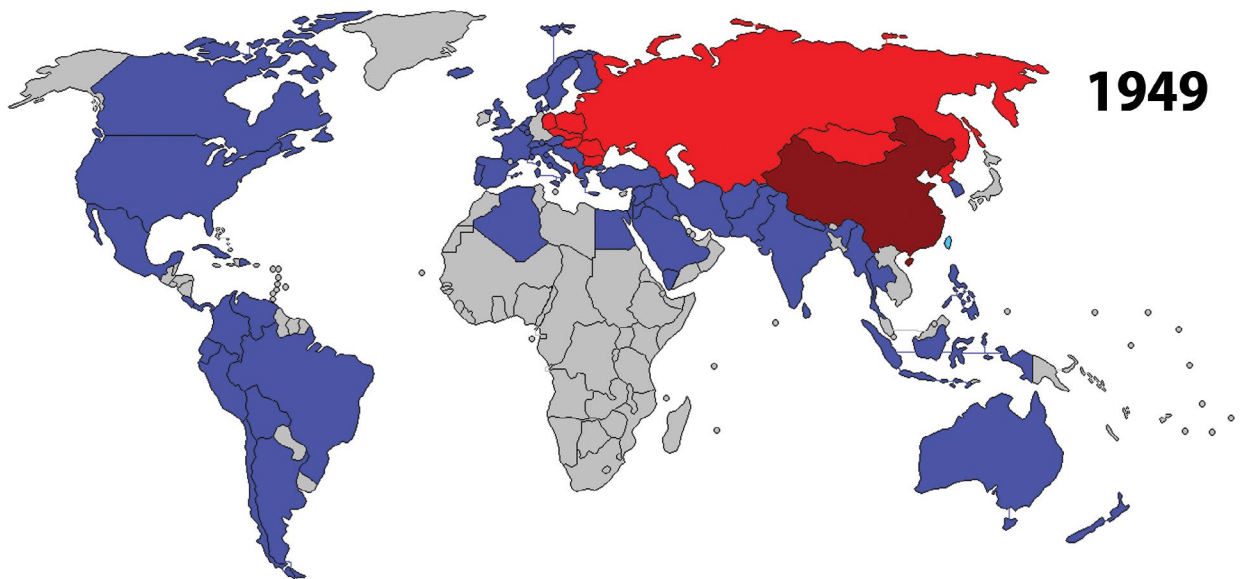
(Figure by Universalis, Wikimedia Commons)

The Struggle between China and Taiwan for International Recognition

1960

1989

2018*

*As of 30 September 2018

People's Republic of China (PRC) Republic of China (ROC)/Taiwan Countries that recognize PRC Countries that recognize ROC