

Indo-Pacific Theater Design Working Paper

# The First Grid

Historical Context for Transformational Change



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# **Indo-Pacific Working Paper 1**

## **The First Grid:**

### **Historical Context for Transformational Change**

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A working paper of the 2019-2020 US Army War College Integrated Research Project on the Indo-Pacific Region

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## About this Project

Indo-Pacific Working papers are products of the on-going US Army War College (USAWC) study on US Indo-Pacific Command (USINDOPACOM) Theater Design. The project identifies and assesses the opportunities, challenges, paths to implementation and risks associated with the Army adopting four transformational roles in the USINDOPACOM Area of Responsibility (AoR) over the next decade. The 2020 USAWC report *An Army Transformed – USINDOPACOM Hypercompetition and US Army Theater Design* argues that the Army should adopt the transformational roles of *grid*, *enabler*, *multi-domain warfighter*, and *capability and capacity generator* because of an “urgent [Joint Force] change imperative in the Indo-Pacific region.” That change imperative stems from the study’s principal finding that US Joint Forces are out of position “physically, conceptually, and in terms of deployed and anticipated capabilities” for hypercompetition with an aggressive People’s Republic of China (PRC) rival.

The project directors will release Indo-Pacific Working Papers as a series of Army War College analyses over the summer and fall of 2020. Papers in this series will offer specific recommendations to US senior leadership as to how the US Army, as part of the larger Joint Force, might operationalize the four transformational roles over the next ten years. Army embrace of the four transformational roles now and through the next decade is a necessary first step for US Joint Forces to thrive in persistent hypercompetition with China and, if necessary, prevail in armed hostilities in the event of escalation. Working Papers in this series are intended to elicit feedback and comment from a wide audience.

## HISTORY'S SUCCESSES AND TODAY'S CHALLENGE

The recently published USAWC report *An Army Transformed – USINDOPACOM Hypercompetition and US Army Theater Design* argues that over the next decade the Army should adopt the transformational roles of *grid*, *enabler*, *multi-domain warfighter*, and *capability and capacity generator* because of an “urgent [Joint Force] change imperative in the Indo-Pacific region.”<sup>1</sup> This working paper turns to history and the example of the Pacific War with the United States and Allied powers fighting against Imperial Japan during the years 1941-1945 to highlight the timeless strategic challenge of great power rivalry in the vast Indo-Pacific theater. It illustrates the common strategic logic, shared theater design principals, and enduring operational challenges linking US World War II leadership with contemporary defense and military decision makers charged with regaining the strategic initiative against the United States’ pacing rival China.

A survey of World War II’s Pacific “theater design” exhibits qualities of the transformational roles of *grid* and *enabler* described in *An Army Transformed*.<sup>2</sup> During America’s Pacific War, the United States and its Allies built a vast supporting network or grid as the foundation for theater wide military operations. At the core of World War II’s grid was a constellation of bases akin to the hubs described in *An Army Transformed*. Animated by myriad specialized personnel and capabilities, World War II’s theater grid was the enabling foundation that facilitated Joint military success across the Pacific theater by September 1945.

World War II success across the Pacific theater relied on extensive strategic preparation prior to the outbreak of hostilities with Japan. That pre-war foundational work set the conditions for the deliberate expansion of US capability in the theater after war broke out. *An Army Transformed* identifies the same is required now and

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<sup>1</sup> See Nathan Freier and John Schaus, et al, “An Army Transformed: USINDOPACOM Hypercompetition and US Army Theater design”, Strategic Studies Institute, US Army War College Press, accessed July 31, 2020, <https://publications.armywarcollege.edu/pubs/3731.pdf>, xiv.

<sup>2</sup> Ibid, XV. “An Army Transformed” describes the “grid” as “a distributed, resilient, and mutually reinforcing theater network of expeditionary base clusters, hubs, and nodes as the foundation for regional Joint operations.” It likewise describes the role of “enabler” as a “Joint-focused Army transformation specific to USINDOPACOM in the areas of mission command, sustainment, protection, movement, and intelligence (and information) to animate the grid.”

through the next decade in order for US Joint Forces to thrive in persistent hypercompetition with China and, if necessary, prevail in armed hostilities.

Thus, this short working paper surveys US and Allied efforts prior to and during World War II to construct a networked enabling grid of hubs and supporting mission command relationships from and through which US and Allied forces would ultimately stage and support successful combat operations across the Pacific theater of war. This paper also highlights key lessons from the Pacific War that parallel the insights of an *Army Transformed* and inform implementation of its findings and recommendations.

## THE INTERWAR GRID EMERGES

In the 1930s, the United States clung to neutrality as the storm clouds of World War II gathered. Despite pervasive isolationist sentiments at the time, the US Government took several prescient steps to prepare for looming conflict with hostile regimes in two distinct theaters. Many American decision makers increasingly deemed war inevitable with one or both Axis rivals. Among these early preparatory efforts were massive increases in naval spending and a peacetime Army draft.

The American military also stepped up efforts to improve its enabling infrastructure, creating bases where none existed previously and improving existing facilities in anticipation of increased military demands. These actions resulted from the Navy's "Hepburn Board"—chartered by the Secretary of the Navy in June 1938 to survey US naval basing worldwide—the recommendations from which Congress enacted.<sup>3</sup> In the Pacific, the US military created new capabilities out of whole cloth or improved existing facilities on the West Coast, in Hawaii, in the Philippines, and in other island territories throughout the region. However, Congress forbade any new efforts on Guam to avoid antagonizing nearby Japan.

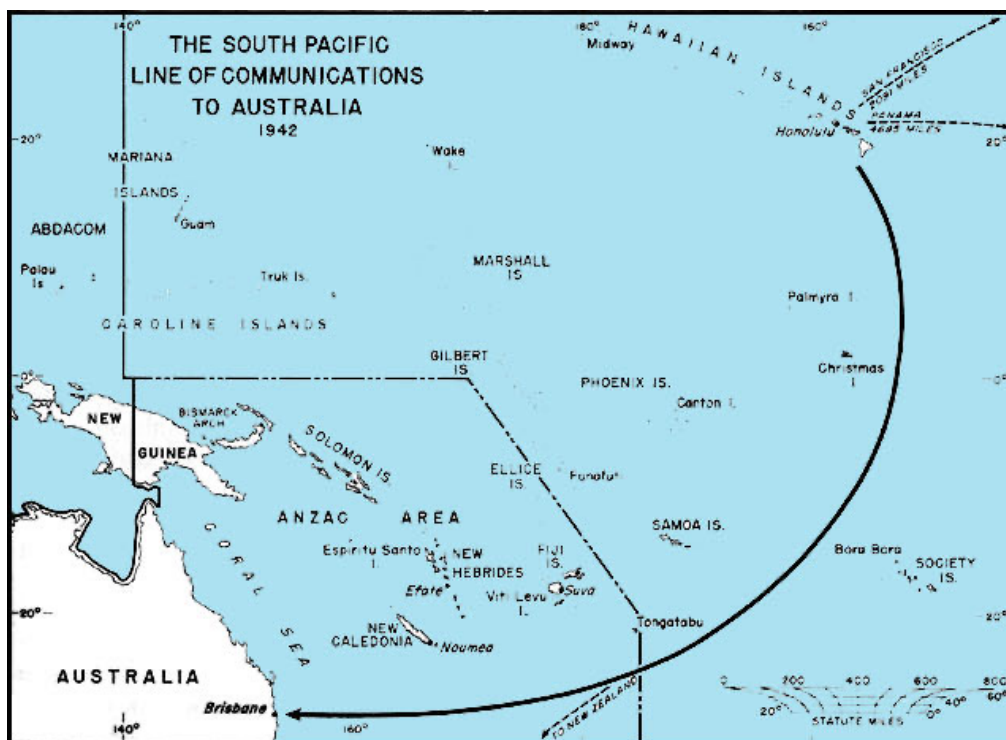
1940 witnessed more American efforts to prepare for war, especially in Hawaii. Upon the completion of the annual fleet exercise, President Franklin D. Roosevelt ordered the Pacific Fleet to remain in Pearl Harbor instead of returning to its home port of San Diego. The President ordered relocation of the Pacific Fleet to deter Imperial Japan. However, the rebasing required additional facilities to properly support the permanent repositioning of naval forces to Hawaii.

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<sup>3</sup> Robert W. Love, *History of the US Navy, 1775-1941* (Harrisburg, PA: Stackpole Books, 1992), 609-610.

The rebalance of American forces to the Indo-Pacific region initiated in 2012 and the current administration's subsequent identification of INDOPACOM as the nation's priority theater do not presage war in the same way Roosevelt's decisions did in 1940.<sup>4</sup> They do, however, offer a unique analog event, representing common strategic logic and decision making: a gathering military threat, increased American vulnerability to that threat, and an attendant shift in US strategic military priorities.

In 1940, the Navy started work on additional facilities in Hawaii, including improvements for supporting the Navy's air component. The Army sent additional forces to Hawaii as well and also made improvements to help protect the vulnerable but vital Hawaiian Islands and the American fleet now based there. One of the most important of these reinforcements was Army deployment of its newest enabling capability: fixed and mobile radar.



<sup>4</sup> See Department of Defense, "Sustaining US Global Leadership: Priorities for 21<sup>st</sup> Century Defense", January, 2012, accessed July 31, 2020, [https://archive.defense.gov/news/Defense\\_Strategic\\_Guidance.pdf](https://archive.defense.gov/news/Defense_Strategic_Guidance.pdf) and The Department of Defense Indo-Pacific Strategy Report: Preparedness, Partnership, and Preparing a networked Region, June 1<sup>st</sup>, 2019, accessed July 31, 2020, <https://media.defense.gov/2019/Jul/01/2002152311/-1/-1/1/DEPARTMENT-OF-DEFENSE-INDO-PACIFIC-STRATEGY-REPORT-2019.PDF>.

Figure 1, *The Pacific and Adjacent Theaters, April 1942*, from *Strategy and Command: The First Two Years* by Louis Morton<sup>5</sup>

In addition to efforts in Hawaii, the US military created or improved facilities in many American territories, including the islands of Wake, Midway, Johnston, Palmyra, Christmas, Canton, Fiji, and New Caledonia. These improvements included port facilities, airfields, and seaplane bases among others. Later wartime construction would dwarf the prewar naval building efforts.

Airfields in many of the islands southwest of Hawaii were initially intended to support ferry routes for aircraft to Australia or the Philippines. Yet, they also formed an island chain of bases that would prove invaluable to the American and Allied transition to hostilities after Pearl Harbor. Finally, the Marine Corps sent defense battalions to garrison some of the outlying islands such as Wake and Samoa prior to Pearl Harbor. However, some of the defense battalions were still preparing for deployment when war broke out in December 1941.

## THE ONSET OF WAR AND ACCELERATED ADAPTATION

The Japanese theater-wide offensive of December 1941 struck heavy blows against surprised Australian, British, Dutch, and American defenders across the region. The raid on Pearl Harbor did substantial damage to the US Pacific Fleet, and Allied forces were soon reeling in the Philippines, Malaya (present-day Malaysia and Singapore), and the Dutch East Indies (present-day Indonesia). In the aftermath of the initial Japanese onslaught, the Allies, led by the United States, scrambled to improve the line of bases between the US west coast and Australia.

At the Arcadia Conference in Washington D.C. between December 1941 and January 1942, US and British political and military leadership agreed that the United States would be responsible for the defense of Palmyra Atoll, Christmas Island, Canton Island, American Samoa, and Bora Bora. Similarly, New Zealand would be responsible for the Fijis and Australia for New Caledonia, although both would need near-term assistance from the United States and Britain. At the time, the Allies were gravely concerned that the Japanese would seize New Caledonia and the Fijis over

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<sup>5</sup> Louis Morton, *Strategy and Command: The First Two Years*, United States Army in World War II: The War in the Pacific (Department of the Army, 1962), available at <https://www.ibiblio.org/hyperwar/USA/USA-P-Strategy/maps/USA-P-Strategy-3.jpg>



the near term, cutting the sea line of communication between Australia and the rest of the world.

Meanwhile, the Army's Hawaiian Department repeatedly called for reinforcements and equipment. Although troops and matériel were scarce, the US military worked to meet these requests while also improving American defenses and facilities on the west coast of the United States and in Alaska and Panama.

## THE CHALLENGE OF MISSION COMMAND

In the early months of the war, the Allies were on the strategic defensive. During this period, Allied command and control underwent several changes based on geography and operational demands. As the situation in the Philippines became grim in 1942, General Marshall ordered the formation of a new command: US Army Forces in Australia (USAFIA). USAFIA was an administrative and logistical organization that would work closely with the Australians to form several base sections, which were largely logistical in nature.

In addition to General Douglas MacArthur's command in the Philippines and the new USAFIA, the Army greatly expanded the long-standing Hawaiian Department. Not long after the formation of USAFIA, President Roosevelt ordered MacArthur to leave the Philippines. With MacArthur's departure from the Philippines and the Allied collapse in the Dutch East Indies, the US Joint Chiefs of staff created two new Pacific theaters of operation: The Southwest Pacific Area (SWPA) and the Pacific Ocean Areas (POA). MacArthur commanded the former and Admiral Chester W. Nimitz the latter. Nimitz further subdivided POA into the North Pacific Area (NORPAC), the Central Pacific Area (CENPAC), and the South Pacific Area (SOPAC). Vice Admiral Robert A. Theobald initially commanded NORPAC, Nimitz retained command of CENPAC, and Vice Admiral Robert L. Ghormley commanded SOPAC.

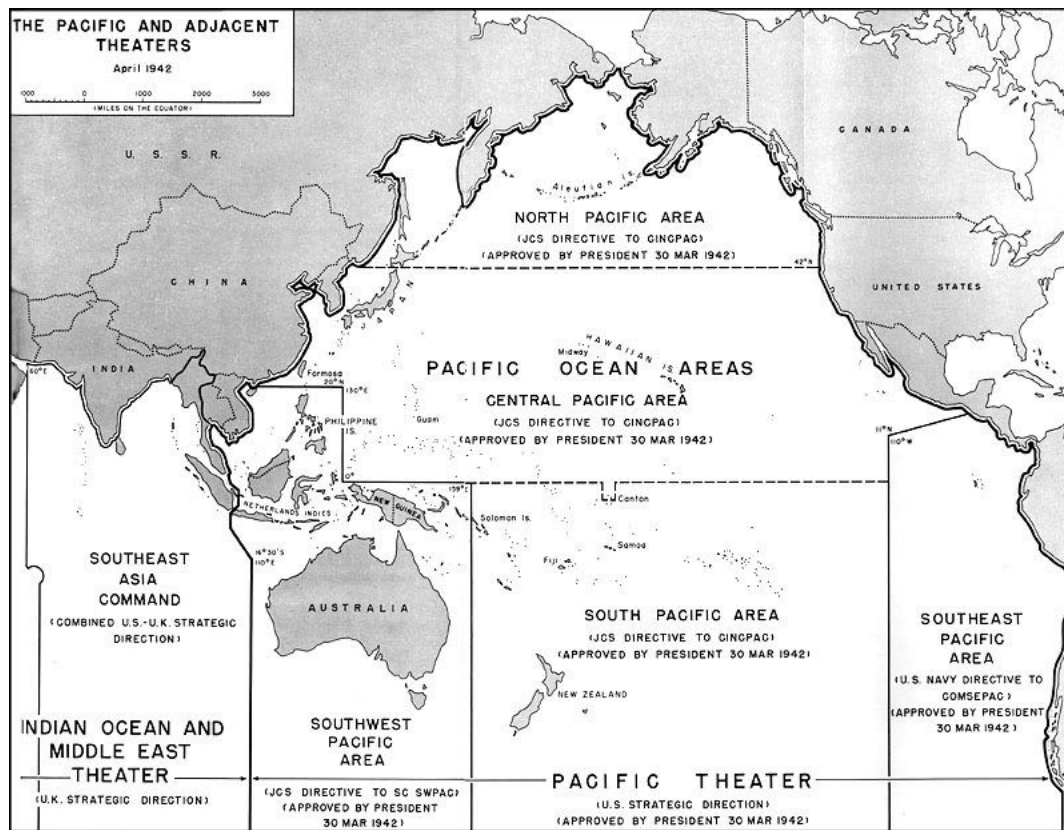


Figure 2, *The Pacific and Adjacent Theaters, April 1942*, from *Strategy and Command: The First Two Years* by Louis Morton<sup>6</sup>

Although MacArthur commanded SWPA and essentially all theater Army forces, the Army also established the headquarters US Army Forces in the Central Pacific Area (USAFICPA) to command and control Army Forces in the CENPAC area of responsibility. Lieutenant General Robert C. Richardson, Jr. commanded USAFICPA under Nimitz while retaining command of the Hawaiian Department as well. For SOPAC, the Army formed US Army Forces in South Pacific Area (USAFISPA) commanded by Lieutenant General Millard F. Harmon of the US Army Air Forces. Unfortunately, the island chain of bases and the line of communication they supported fell into not only both POA and SWPA, but also in CENPAC and SOPAC.

This command and control arrangement was unique during World War II and undermined the principle of unity of command. If the Japanese had attacked along

<sup>6</sup> Louis Morton, *Strategy and Command: The First Two Years*, United States Army in World War II: The War in the Pacific (Department of the Army, 1962), available at: <https://www.ibiblio.org/hyperwar/USA/USA-P-Strategy/maps/USA-P-Strategy-II.jpg>

the seam, which Admiral Ernest J. King had feared, command and control would have proved challenging for all involved. The command and control was the key reason for the US Joint Chiefs of Staff subsequent shift of the SWPA and POA theater boundary.

As American leadership in World War II adapted to great power war fought across an immense theater comprised of nodal distributed operating locations, they were forced to adopt mission command arrangements equal to the task. *An Army Transformed* similarly recommends a number of transformational changes in mission command. In sum, these would allow the Army to both conduct multi-domain warfighting and enable Joint Force all-domain operations from a widely distributed posture as part of new unifying Joint concept. Later work will expand on opportunities, challenges, and risks associated with various options in this regard.

## **BUILD EARLY, BUILD OFTEN, BUILD CONTINUOUSLY**

At the same time the United States and its Allies were establishing the infrastructure and command and control architecture necessary to prosecute the war, they also scrambled to assemble the means to fight the Japanese. For the first quarter of 1942, most of the troops and material sent abroad went to the Pacific, especially Australia. These efforts required a large share of both Navy and Army shipping. The Army of 1941-1942 had a substantial fleet of troop transports, cargo ships, maintenance ships, and other logistics vessels to meet Army-specific mission and logistical requirements.

Even with their own shipping fleets, however, there were significant Navy and Army capacity shortfalls in shipping and logistics. In fact, the nation's newly established War Shipping Administration had to allocate additional Navy, Army, and civilian shipping to ensure proper prioritization of scarce shipping resources across competing service demands. Not unlike today, this often sparked intense and even acrimonious senior-level disputes over finite transportation assets.

The Arcadia Conference had resulted in the now widely acknowledged "Germany First" strategy. And, early focus on the Pacific theater was not necessarily consistent with the allied course agreed upon at Arcadia. However, the early prioritization of the Pacific theater in the allocation of resources and construction of new facilities was necessary to slow the Japanese advance and avoid early catastrophic loss. Initially, the troops and matériel that went to the Pacific mainly went to the Hawaiian Island

chain. By March 1942, however, the priorities for shipping and resources shifted to Europe, reducing what was available for the Pacific theater for the time-being.

There were many challenges to the initial efforts in the Pacific to build up the chain network of bases between Hawaii and Australia. The primitive conditions in the Pacific required significant numbers of specialized service troops and base construction. Additionally, parallel rather than joint logistics was a challenge to building and improving these bases, as both the Army and Navy competed for the same materials. Although a single service took overall responsibility for each island in the network, there was often a lack of coordination and cooperation between different services on individual islands in the early days of the war.

The Army commanded and built up bases on Christmas Island, Canton Island, Bora Bora, New Caledonia, Tongatabu, Efate, Espiritu Santo, Fanning, and the Fijis. The Navy also commanded a handful of islands, including those garrisoned by Marines and built up as air bases. These included the Samoan, Palmyra, and Johnston Islands. By May 1942 the bases, command and control structure, and logistical systems were in place, but they were far from mature when the Guadalcanal Campaign began in August. Port facilities were initially all but nonexistent or rudimentary, resulting in terrible backlogs of ships waiting to unload.

As the network of hubs between the west coast and Australia matured, Admiral Ernest J. King pressed General George C. Marshall for access to more long-range aircraft. General Henry "Hap" Arnold, Commanding General of the Army Air Forces, fought King's efforts, preferring to send the long-range aircraft to the European Theater to support the strategic bombing campaign against Nazi Germany. Not only were these aircraft to provide an adequate maritime reconnaissance capability, they were also to attack Japanese forces threatening the chain network of hub islands. King felt this was essential to prevent the Japanese from threatening vital sea lines of communication between the United States and Australia.

Also, shortages of intra-theater and trans-Pacific transportation and poor port facilities greatly hindered Allied operations during this period. Some historians have described World War II as an air war due to the maturation and importance of air operations. In the Pacific, land- and carrier-based aviation were essential for reconnaissance, security, strike, and defensive missions. Consequently, aircraft carriers and island airbases were of major importance to the commanders. The small number of aircraft carriers, the dire tactical and operational consequences of any losses, and the lack of any new aircraft carriers for some time added emphasis to the allied focus on the island chain.

Early efforts to establish hubs forward in the theater—accelerated after the outbreak of hostilities with Japan—paid great dividends. They were at first a single vulnerable line of key facilities essential for keeping the United States in the war and, ultimately became the beginnings of a robust war-winning grid. Land-based air from the earliest hub air bases in the theater were critical during the early Battle of the Coral Sea in May of 1942.

The decisive June 1942 Battle of Midway centered around a single vital island hub. American commitment to holding Midway is a testament to the value of forward land-based hubs. US success holding Midway ultimately denied Japan the opportunity to add another forward hub to their own countervailing warfighting grid. Soon after Midway, the United States prevented Japan from establishing an effective and mature operational grid in the Solomon Islands when US Marines landed on Guadalcanal and Tulagi on August 8, 1942.

These landings began the brutal Guadalcanal Campaign, 1942-1943, which would prove to be a grinding six-month war of attrition at sea, on land, and in the air. The American price in blood and treasure to take this hub from the Japanese was immense: approximately 1,700 Marines and soldiers killed in action; 400 aviators of all services killed in action; 5,000 sailors killed in action; and 600 aircraft destroyed, along with 29 ships sunk and over 7,700 wounded. During the campaign, the Hawaii-to-Australia network of island hubs was essential in supporting combat operations with supplies, airfields, port facilities, replacements, hospitals, and headquarters. As the Allies steadily drove the Imperial Japanese Army off of Guadalcanal, the Allies built facilities to support ongoing and future offensive operations up the Solomon Island chain as well. This building-while-fighting approach was a hallmark of American operations in the Pacific. While hostilities with China would involve some of this as well, *An Army Transformed* offers a roadmap to avoid over-reliance on building-while-fighting.

## THEY SHOWED US THE WAY

The American and Allied experience in the Pacific War provides a template for how current national leadership might think about posturing for great power hypercompetition in the Indo-Pacific going forward. Armed hostilities between the United States and China are by no means inevitable. This paper does not suggest that they are. Instead, American inter-war and wartime experience in the Pacific theater demonstrates potential in early commitment to a comprehensive enabling

grid approach to regional military rivalry. As in World War II, a distributed nodal approach to theater war fighting will expand US and allied military options, complicate Chinese military decision making and planning, and, ultimately, increase the prospects for preventing conflict.

Between 1941 and 1945, deliberate construction of an extensive warfighting grid throughout the Pacific theater ended in an Allied military victory. The early Allied grid—based on a network of island hubs—would ultimately expand and play an essential role as the Allied front lines inexorably moved towards the Japanese home islands. After the Battle of Midway and the Guadalcanal Campaign, the Pacific War transitioned to a period of strategic equilibrium in 1943.

Employing the language of *An Army Transformed*, during this time the Allies undertook a herculean effort to improve existing hub facilities and create new ones, ultimately, expanding and improving a robust, war-winning Allied enabling grid across the theater. The World War II Indo-Pacific grid set the theater to support frontline combat units and put persistent pressure on an adversary that retained the strategic initiative at the time the war broke out.

In the last half of 1943, Allied forces transitioned to the strategic offensive—firmly regaining the initiative from the Japanese adversary—in both SWPA and POA. SWPA began Operation CARTWHEEL to neutralize the massive Japanese hub at Rabaul, and POA executed Operation GALVANIC, the seizure of the Gilbert and Marshall Islands. As the Allied front moved towards Japan, Allied lines of hubs reached forward like tentacles, supporting and generating front line combat forces and setting conditions for future operations.

## FOUR KEY LESSONS

There are four key lessons for US defense and military decision makers relative to the INDOPACOM AoR in the World War II experience. First, the progressive distribution vice concentration of American and Allied combat power throughout the theater after the disaster of Pearl Harbor created unmanageable operational challenges for the Japanese military. *An Army Transformed* finds that a unified Joint concept for competition and conflict that combines US service strengths and operates from a more agile and distributed enabling grid will likewise complicate rival China's theater military objectives. *An Army Transformed* recommends that a future enabling grid rest largely on a US Army foundation.

Second, advanced preparation of a nascent string of key operational hubs helped US and Allied forces remain competitive against a Japanese adversary that held the initiative at the outset of hostilities. This early preparation gave US and Allied decision makers just enough decision and operating space to allow for a more deliberate but, nonetheless, relatively rapid expansion of a theater-wide war-winning grid of distributed operating locations over time. At present, the United States is overly concentrated in Northeast Asia, Hawaii, and Guam. In light of an already sophisticated Chinese anti-access/area denial complex that is certain to limit US freedom of action in the event of hostilities, *An Army Transformed* recommends that US decision makers get an even earlier jump on rival China by establishing a constellation of highly-developed and expeditionary clusters, hubs, and nodes maintained at various states of operational readiness across the INDOPACOM area of operations. This complex of operating locations would enable the theater commander to rapidly generate various operational solutions not only in response to an aggressive Chinese rival but further to meet a broad range of theater-level military demands.

Third, US and Allied military leaders at times struggled with unity of command and authority perhaps because of the requirement to create mission command arrangements in crisis. Ultimately, there was a coherent theater architecture that, while not as Joint as preferred today, exhibited adequate Jointness for the time as it matured throughout the war. *An Army Transformed* recommends that senior US decision makers avoid this challenge and develop clearly delineated mission command arrangements—especially for the Army’s theater enabling role—in advance of crisis to facilitate active Joint all-domain hypercompetition on a persistent basis. Doing so now will also facilitate transition to armed hostilities in the event that becomes necessary.

Finally, fourth and specific to the enabling function, construction, maintenance, and exploitation of the World War II grid required wartime leaders to generate new organizational, human capital, and matériel solutions for the complex operational challenges of the Pacific theater. These largely occurred after hostilities commenced under the pressure of time, competing demands, and enemy action. *An Army Transformed* notes that while active hypercompetition with China is well underway, US defense and military leaders have an opportunity now to substantially improve US strategic position vis-à-vis rival China through immediate innovation in posture, missioning, task organization, and concepts of operation. This implies learning from World War II leadership that transformation now in the midst of hypercompetition with a great power rival will serially develop and refine organizational, human capital,

and matériel solutions essential for the United States to thrive at any and every step in escalation with China over the long haul. Waiting for crisis—as occurred in 1941—is likely a losing proposition.

Over the summer and fall this year, additional insights will emerge from USAWC analysis on the transformation of INDOPACOM theater design and the opportunities, challenges, paths to implementation and risks associated with the Army adopting the four transformational roles described in an *Army Transformed*. This historical survey provides historical insights linking the US experience in the Pacific War and findings and recommendations that emerged in *An Army Transformed*. These insights will continue to inform the study team's findings and recommendations on implementing the transformational roles identified in *An Army Transformed*. Subsequent working papers will be released over the summer and fall of 2020.