"No Option is Excluded": Using Wargaming to Envision a Chinese Assault on Taiwan

Mr. Ian Sullivan Mad Scientist Blog, US Army TRADOC, 01JUL2021.

In January 2019, Chinese Premier Xi Jinping made a major policy speech that highlighted Beijing's longstanding objective of reunification with Taiwan. In this address, he said the current situation "cannot go on generation to generation." Speaking two year later, he noted that while China seeks unification on peaceful terms, "no option is excluded." Xi's words over the last two years go hand in

glove with much more aggressive Chinese pressure—across the diplomatic, information, military, and economic (DIME) spheres—against Taiwan and the West. Since 2020, the Chinese People's Liberation Army Air Force (PLAAF), for example, has exerted near constant levels of air operations infringing on Taiwan's airspace. One such flight, occurring this January, penetrated Taiwan's air defense identification zone (ADIZ). These flights typically involve a handful of aircraft at time, but this one involved 8 H-6K bombers and 4 escorting J-16 fighters. Furthermore, in September 2020, the People's Liberation Army (PLA) held a large exercise near the Taiwan Strait. Chinese media noted that this event

was "not warning, but a rehearsal for a Taiwan takeover." 2

These activities are occurring while the PLA is undergoing the most significant military modernization program in its history. Beginning in 2017, the PLA began a massive effort to develop new capabilities, devise new doctrine and approaches to warfare, and to create a force that was capable of waging its preferred way of war. The PLA expanded its view from active defense to local wars, and then transforming first to "informationized" warfare as a waypoint toward a force capable of waging what it terms "intelligentized" warfare. This comprehensive modernization effort—which touches all parts of doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy (DOTMLPF-P)—is designed to create a force capable of conducting complex joint operations, particularly for a future Taiwan contingency. The result of this effort is a PLA that is increasingly capable, and likely

confident, in its ability to achieve unification with Taiwan militarily. In recent testimony before the Senate, outgoing Indo-Pacific Command Commander ADM (Ret) Phil Davidson reported that he believes China's desire to compel unification on military terms could occur within the next six years.⁴

The rapid modernization of the PLA and the growing assertiveness of Chinese efforts around the globe Furthermore, in a statement before the US-China Economic and Security Review Commission, China compels the Army, and the broader Department of Defense to consider the implications of a clash with a expert Oriana Skylar Mastro assessed that the PLA may now be capable of seizing Taiwan, even if the much more capable PLA. Historically, the Army has done a very good job in training its forces for United States intervened in Taiper's defense. She added, that "for the first time in Chinese history, Xi conflict. The ability to replicate the threat at the Combat Training Centers, to prepare leaders and will believe that he has at his disposal a military capable of forcing unification." Soldiers for Operational Environment (OE) they will face, and developing and implementing new

¹ Oriana Skylar Mastro, "The Taiwan Temptation: Why Beijing Might Resort to Force," Foreign Affairs, July/August 2021.

² Denny Roy, "Rumors of War in the Taiwan Strait," The Diplomat, 20 March 2021.

³ Office of the Secretary of Defense, "Military and Security Development Involving the People's Republic of China 2020: Annual Report to Congress," 2020, page 115.

⁴ Mallory Shelbourne, "Davidson: China Could Try to Take Control of Taiwan In 'Next Six Years.'", US Naval Institute News, 9 March 2021.

⁵Mastro, "The Precarious State of Cross-Strait Deterrence," Statement Before the US-China Economic and Security Review Commission on "Deterring PRC Aggression Toward Taiwan," 18 February 2021, pages 1-2.

concepts and doctrine to deal with developing threats has been a hallmark of the Army's success. However, twenty-plus years of counter-insurgency operations have created gaps and seams in this formidable capability, while our adversaries' across-the-board DOTMLPF-P modernization have moved the goalposts. Much Army training and education focuses on the tactical, and maybe the operational level of warfare. We seek to dominate the tactical fight by creating highly capable small units and Brigade Combat Teams. A fight with a power like China over Taiwan, however, calls for different thinking. The fight likely will be broader; it will operate on levels of warfare up to the strategic; indeed, the operational-to-strategic levels likely will prove dominant. It also will be a geographically dispersed fight, ranging from the US Homeland, across the great global commons of the Pacific Ocean, and all the way to the ground domain on Taiwan itself.

A Taiwan contingency presents an array of challenges to the US Joint Force. The most obvious deals with time and distance. The Taiwan Strait is about 80 miles wide. Although a formidable obstacle to cross, time and distance factors clearly favor China, as the distance between California and Taiwan is over 6,000 miles. Furthermore, although the United States maintains a strong presence in the Indo-Pacific Theater, they clearly would be at a numerical disadvantage if the PLA decided to initiate an invasion. Finally, the PLA's significant area denial/anti-access (A2/AD) capabilities mean that any effort to move a US force across the Pacific will be contested, possibly from CONUS itself all the way across the Pacific. To understand the challenge we face, it is imperative that we imagine what such a fight would entail.

In November 2020, I wrote a previous article for the Mad Scientists blog, titled "Would You Like to Play a Game? Wargaming as a Learning Experience and Key Assumptions Check." I argued that wargaming can help us visualize what the threat can be. It can help us imagine it and provide context to our thinking about it. It can help us check our assumptions, and perhaps even offer thoughts and ideas that we would never have considered. It will not tell us the future, or lay out with certainty what will happen. But it can offer us an opportunity to prevent a failure of imagination of the kind warned against in the 9/11 Commission Report. By imagining the threat, we may be in a position to make better decisions during moments of crisis. In the previous article, I played through GMT Games "Next War: Poland," which simulated a conflict between NATO and Russia over the Baltics and Poland. This time, I'm using a copy of GMT Games "Next War: Taiwan" to help visualize what such a fight could entail.

In an effort to guard against the failure of imagination of which I am so concerned, I will add a narrative to help explain what happened in the game. Rudyard Kipling once said that if "history were taught in the form of stories, it would never be forgotten." Narrative writing is a powerful, and by spinning it around the bones of a game, I hope to help imagine what a fight could be. Tom Clancy and Larry Bond used this method in their novel *Red Storm Rising*, where they crafted a narrative around the results of a series of scenarios they played of the wargame "Harpoon." My effort here, however, is intended to be more in the spirit of Sir John Hackett's *The Third World War: August 1985*, which originally was published in 1978, and was intended to help NATO leaders imagine what a fight with the Warsaw Pact could look like.

"Report to the Senate Armed Services Committee from the Office of the Secretary of Defense on China's Successful Campaign to Capture Taiwan, 15 December 2023"

The Department of Defense has been tasked by the Senate Armed Services Committee to deliver a report on China's recently concluded campaign that compelled the surrender of Taiwan, and to outline

and the failure of Operation OCEAN TYPHOON to defend the island against Chinese aggression. This report, drafted only 90 days after the surrender of Taiwan, will seek to lay out the timeline of events and immediate lessons learned from military operations in the 24-day conflict with China. The immediate lesson learned was that the US Military performed resolutely in the defense of Taiwan. However, it is clear in retrospect that China's broad efforts to sow confusion within the Homeland, targeting the Joint Force's ability to mobilize and transport forces to the decisive theater, coupled with surprise strikes involving highly capable precision strike weapons against US forces deployed in the region at the outset of the conflict, proved decisive, and placed the forces in the theater at a significant disadvantage at H-hour and beyond.

Prior to the onset of hostilities, it was clear that China was preparing for operations against Taiwan. There were some indications that such a move was possible; indeed, during the run-up to the invasion, the Intelligence Community provided enough of a strategic warning picture that allowed for the initial reinforcement of US forces in the theater. This included the deployment of the 1-82 Brigade Combat Team and a THAAD battalion to Japan, the deployment of B-2 bombers to Andersen Air Force Base in Guam, the deployment of USMC strike aircraft at Clark Airbase in the Philippines, and the forward deployment of the RONALD REAGAN Carrier Battlegroup and an Amphibious Ready Group embarking elements of the 11th Marine Expeditionary Unit.

- In the game, the United Kingdom, Australia, Japan, the Philippines, and Vietnam joined with the United States and ROC to defend Taiwan. Manila allowed US forces to operate out of its territory. Malaysia, according to game rules, allied with China, and supported their operations in the South China Sea.
- The role played by third-party nations was determined by chance, and does not represent a real-world policy leaning. Indeed, the most counterintuitive permutation here is Malaysia's support for China. Over the last few weeks, Kuala Lumpur has vigorously protested Chinese PLAAF violations of its airspace. Additionally, the decision by Manila to allow basing rights also is speculative, although tensions between the Philippines and China recently increased over the deployment of a massive fishing fleet off Whitsun Reef in the South China Sea. Although not played in the game, the decision by other nations to become involved in the conflict demonstrates the critical nature of the competition and crisis efforts by both Washington and Beijing, as well as the central role played by Allies and partners in regional political-military affairs.

Prior to the actual invasion of Taiwan, the PLA conducted a series of rapid, near simultaneous amphibious operations across the theater. The first occurred on D-6 and D-5, respectively, involved the occupation of contested islands in the Spratly and Paracel Islands. These were followed on D-2 with an occupation of the Ryukyu Islands. Finally, on D-1, the PLA struck against Taiwanese occupied Penghu Island, defeating the Republic of China (ROC) Brigade defending it in a lightning amphibious assault.

China initiated broader hostilities 24 hours after the assault on Penghu. Its initial operations at H-Hour were aimed at setting the conditions for a successful invasion. These attacks involved kinetic and non-

⁶ "South China Seas Dispute: Malaysia Accuses China of Breaching Airspace", BBC News, 2 June 2021.

⁷ "Philippines Calls on China To Remove Massive Fishing Fleet at Disputed Reef," *National Public Radio*, 22 March 2021.

kinetic attacks against US forces in Japan, the Philippines, Guam, and at sea, as well as a series of strikes against targets across the ROC with ballistic and cruise missiles. The attacks on Taiwan largely were accomplished with cruise missiles, and they targeted airbases at Zuoying and Hualien, as well as the port of Keelung. These attacks inflicted only moderate damage to the bases and the aircraft they housed. Much more successfully for the PLA were strikes on Japan and Guam. The attacks on Japan were conducted with DF-17 ballistic missiles carrying hypersonic glide vehicle warheads. They were very effective in damaging several bases housing US and Japanese aircraft, which prevented the use of the runways for several days. Guam was struck with DF-26 intermediate range ballistic missiles. Efforts by the PLA Strategic Support Force to mitigate early warning of the attack proved successful, and the missile attack destroyed the forward deployed B-2s on the ground at Andersen Air Force Base.

- The game provides China only with a Cruise Missile capability; however, I created several new rules for the game to better simulate the PLA Rocket Force's (PLARF) diverse and sophisticated range of capabilities. The PLARF has several thousand short-range ballistic missiles capable of ranging Taiwan and hundreds of theater weapons, including the DF-17 hypersonic missile, the DF-21D "carrier killer," and the DF-26. Additionally, the PLAAF and People's Liberation Army Navy have platforms capable of delivering cruise missiles against targets across the theater.
- The game does not simulate space operations, but the initial strike by China in this scenario was uncontested, which means that China was able to tactical surprise by mitigating US early warning capabilities. The PLA's Strategic Support Force (SSF), which is responsible for both cyber and space operations, has a range of destructive and non-destructive ground- and space-based anti-satellite (ASAT) weapons. It currently fields ground-based ASAT missiles intended to destroy satellite in low-earth orbit and ground-based lasers that can or damage space-based optical sensors.⁹

These initial attacks were followed by a second wave of missile strikes which continued through D+2, targeting airbases across Taiwan and Japan. Additionally, the PLARF launched a barrage of DF-21C ballistic missiles against the REAGAN Carrier Battle Group operating off the Philippines, although it was able to successfully defend itself against the strike. These attacks created confusion and significant damage to the US and Allies' ability to employ air power to stop the initial invasion. Reeling from the strikes on Japan, the US and ROC were able to rely only on limited numbers of US Navy Super Hornets, USMC F-35Bs, and a handful of ROCAF Ching Kuo aircraft to contest the air. Massively outnumbered by a fairly capable PLAAF and a sophisticated ground-based integrated air defense system, the PLA maintained air supremacy over the Taiwan Straits for the first three days of the conflict.

• The PLAAF is a large, capable force equipped with increasingly sophisticated modern fighter aircraft, highly-capable air-to-air missiles, and increased pilot proficiency based on a reinvigorated training program. It possesses 2,500 aircraft, 1,700 of which are combat aircraft (fighters, bombers, or multi-role aircraft). While the vast majority of its aircraft are fourth generation, many are fourth generation-Plus, including the J-10B and –C, the J-11B,

⁸ Defense Intelligence Agency, *China Military Power: Modernizing a Force to Fight and Win*, 2019, pages 91-94; Ma Xiu and Peter W. Singer, "What Do We Know About China's Newest Missiles?", *Defense One*, 19 March 2021; and CSIS, "DF-21 (Dong Feng-21/CSS-5)", *Missiles of the World*.

⁹ Office of the Director of National Intelligence, "Annual Threat Assessment of the US Intelligence Community," 9 April 2021, pages 7-8.

the J-16 Flanker, and the Su-35S Flanker. The PLAAF is developing two fifth generation fighters—the J-20 and J-31—which could enter service over the next few years. ¹⁰ The PLAAF was given limited numbers of these aircraft in the game.

With control of the air, the PLA Navy (PLAN) and PLAAF Airborne Corps initiated an invasion of Taiwan in the early hours of D+2. Elements of the ROC Navy and ground-based coastal defense cruise missile attempted to contest the PLAN move, but the PLAN, which included support from the LIAONING Carrier Battle Group, successfully pushed aside the ROC defenses. The invasion was spearheaded by the PLAN 1st Marine Brigade, which landed by sea just southwest of the city of Hsinchu, and the PLAAF 130th Airborne Brigade east of the city. This was followed by the dropping of two more Airborne Brigades—the 127th and 131st—north of city, across the Touquian River. Backed by naval gunfire and FB-7 Flounder Strike fighters, these units converged on Hsinchu, defeated the ROC brigade defending it, and occupied the city and its critical airbase. By D+2, the PLAN delivered the 5th Marine Brigade and the 14th Amphibious Combined Arms Brigade (CAB) to the Beachhead, and helped expand the lodgment to include the city of Sanwan.

Beginning on D+2, the PLA SSF conducted arguably the most effective part of China's battle plan, which was a well-planned, sophisticated, and devastating campaign of cyber and information attacks against the US Homeland. These attacks targeted both military and civilian targets, including power generation, fuel supplies, financial networks, air traffic control networks, as well as military command and control systems and networks needed to generate combat power. These attacks continued throughout the conflict, but were heaviest and most damaging during the first 12 days. In addition to causing fear, confusion, and anger among the US population, it caused chaos in the Time Phased Force Deployment Data, utterly snarling the Joint Force's ability to effectively generate forces to move to the theater. This, coupled with the constant rain of missile attacks on staging bases in Japan prevented all but a trickle of reinforcements from reaching the theater in time to make a difference.

- The creation of the SSF and the move to informationized and then intelligentized warfare demonstrates the PLA's commitment to winning the cyber and information fight. The PLA believes that it must "seize and control the battlefield initiative, paralyze and destroy the enemy's operational system of systems, and shock the enemy's will for war." ¹¹ In his testimony to the Senate Select Committee on Intelligence in 2019, then-Director of National Intelligence Daniel Coats reported that China has the ability to launch cyber attacks that could cause localized, temporary effects on critical infrastructure—such as disruption of a natural gas pipeline—that could last "days to weeks." ¹²
- A recent Rand Corporation study concluded that US adversaries might seek to target Army installations in an effort to delay or disrupt the Army's ability to project power, mobilize forces, and conduct other wartime missions. It characterized 12 separate categories of

¹⁰ DIA, China Military Power, pages 83-90; Rick Joe, "J-20: The Stealth Fighter That Changed PLA Watching Forever," The Diplomat, 11 January 2021; and Rick Joe, "The FC-31, China's 'Other' Stealth Fighter," The Diplomat, 18 February 2021.

¹¹ Joshua Rovner, "Warfighting in Cyberspace," War on the Rocks, 17 March 2021.

¹² Daniel R. Coats, "Statement for the Record: Worldwide Threat Assessment of the US Intelligence Community," Office of the Director of National Intelligence, 29 January 2019, page 5.

threats to these installations, which range from kinetic attacks through information and cyber warfare. ¹³

Once the PLA established and secured a beachhead on Taiwan, the campaign became a race for the PLA to occupy critical territory in Taiwan and convince the Taiwanese political leaders to desist military resistance before the US Joint Force could unsnarl the chaos caused by the widespread cyber and information attacks against the Homeland, mobilize and deploy reinforcements, and push them through China's A2/AD bubble to stop the Chinese attack. The Joint Force was pushed badly out of balance and out of position, and started at a severe handicap that it never quite overcame. With time and distance on its side, the PLA focused its offensive northward, toward the capital of Taipei.

The PLA picked an unexpected target for their invasion, namely because it was not immediately near a port. They were quickly able to secure an airbase, but it took them until D+8 to secure and open a port—Wuku, to the east of Taipei. This was not as crippling a disadvantage as it could have been, namely because the PLA's modernization effort increased the capability of its Marine and Airborne forces, and also maintained several very capable amphibious CABs within several Group Armies. The result was that the PLA had enough combat power that it could move across the beachhead to sustain its initial drive toward Taipei. Once Wuku was captured, the PLA was able to bring ashore heavier formations—approximately two new CABs every few days. The PLA was able to seize a second port—Keelung—on D+18, which provided additional flexibility as to where fresh CABs could land.

- The PLA over the last few years has placed a renewed focus on its amphibious forces. In 2020, the PLA announced that it was reducing the PLA Army by 300,000 soldiers, but would increase the size of the PLA Marine Corps by 400 percent, from 20,000 to 100,000. They matched this increase with the design and production of new specialized amphibious ships, the Type 075, which is similar to the US Wasp-class LHD, and the Type 071, which is similar to the San Antonio-class vessels.¹⁴
- The PLA reorganized its airborne force in 2017 into a new corps-sized unit, the PLA Airborne Corps, which consists of six specialized brigades. They are intended to seize key targets, such as airfields or bridges, block reinforcement by enemy reserve forces, and strike deep at the enemy's rear. The PLAAF also has introduced larger, more capable transport aircraft—the Y-20—into their force structure.¹⁵

Following the initial invasion, US and Allied forces worked to press back Chinese gains across the region and open critical Sea- and Air-lines of communications to Taiwan. This involved significant efforts in the maritime and air domains, which met with mixed success in the face of a very effective PLA A2/AD architecture. The Spratly Islands, the South China Sea, and the Ryukyu Islands became focal points and hotly contested battlespaces. On D+4, The Philippines Navy attempted to move an amphibious force to wrest control of the Spratly Islands, which were defended by China's Malaysian allies. This group was detected by the PLA and then decimated by a series of DF-21D ballistic missile strikes. An entire regiment of Philippines Marines was lost in this devastating attack. The PLA, however, failed to locate a

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¹³ Elvira N. Loredo, Karyln D. Stanley, Ryan Consaul, Jordan R. Reimer, and Anita Szafran, *The End of Sanctuary: Protecting the Army's Installations from Emerging Threats,* The Rand Corporation, 2020, pages 2 and 6.

¹⁴ Michael A. Hanson, "China's Marine Corps Is on the Rise," US Naval Institute, April 2020.

¹⁵ DIA, page 87.

USN amphibious group, embarking units of the III MEF, which arrived in the Spratlys on D+6. The Marines conducted an amphibious assault, and in a hotly contested fight, secured the Spratlys by D+10.

The success in the Spratlys was matched by a lighting amphibious attack by the People's Army of Vietnam (PAVN) against the Chinese-occupied Paracel Islands. The PAVN Marine brigade, supported by naval gunfire and close support from Su-30 Flankers landed on D+11, and overwhelmed the PLAN 4th Marine Brigade. The PAVN cleared the Paracels on D+12.

A Joint US-Japanese drive in the Ryukyus moved to invade the Chinese-occupied islands around D+15. A PLARF DF-21D attack on a Japanese Naval Self-Defense Force (JNSDF) amphibious assault group failed, and a the initial wave of Japanese forces—their Amphibious Brigade and the 1st Airborne Brigade—assaulted the islands and engaged the PLAN 3rd Marine Brigade. The fighting lasted through D+18, and the Japanese were reinforced by elements of the USMC's 2/4 Marines, which tipped the scales in their favor. Although the Allies reclaimed the islands, which the PLAN had fitted with land-attack cruise missiles. Although the attack was successful, the PLA turned the tables with a concerted series of attacks against the USN ARG carrying the rest of the 11th MEU. Initially damaged by a PLAN submarine attack on D+19, the PLARF and PLAAF combined to conduct multiple attacks against the stricken ARG, which included DF-21D and anti-ship cruise missiles launched by H-6K Badger bombers. The results were disastrous, with most of the ARG destroyed, along with the rest of the 11th MEU.

The growing capabilities of China's A2/AD umbrella likely will continue to challenge the US' ability to move forces to through the combat theater. In the words of former Undersecretary of Defense for Policy, Michele Flournoy, "In the event that conflict starts, the United States can no longer expect to quickly achieve air, space, or maritime superiority.".¹⁶

The fight for air superiority proved to be an uphill struggle. Starting with a significant advantage in numbers on H-Hour, the PLA's ability to strike Allied airbases on Taiwan, Japan, the Philippines and Guam with its well-balanced missile force and even some airstrikes, the Allies' limited force posture within the theater, a very capable and effective PLAAF (in terms of air superiority aircraft and ground-based IADS), and perhaps most importantly, the concerted series of cyber and information attacks within the Homeland which severely delayed the ability to flow reinforcements quickly into the theater, meant that China was able to maintain a measure of air superiority for the first 20 days of the conflict. When aloft, Allied aircraft did very well, and had a moderate advantage in terms of air-to-air victories over their PLAAF counterparts. Fifth-generation fighters—the F-22 and F-35—did well, but they spent much of their time flying counter-air missions instead of ground attack. The result was that the PLA ground forces on Taiwan operated with a relative freedom of maneuver.

 According to a recent OSD assessment, the PLAAF now maintains a force very capable of conducting operations in a Taiwan contingency. The report notes the PLAAF has a "significant capability" to conduct air-superiority operations, while its IADS provides a "strong layer of defense" that makes it difficult to target the Chinese mainland.¹⁷

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¹⁶ Michele A. Flournoy, "How to Prevent a War in Asia: The Erosion of American Deterrence Raises the Risk of Chinese Miscalculation," *Foreign Affairs*, 18 June 2020.

¹⁷ OSD, page 117.

Although much of the focus of the fight was in the air and maritime domain, the campaign truly was decided on the ground. As noted earlier, the initial invasion was launched with specialized amphibious and airborne forces. However, by D+8, the PLA's ability to seize a port proved decisive. By the end of the campaign, the PLA Army (PLAA) was able to land elements of three Group Armies—the 72nd, 73rd, and 74th—which provided the combat power necessary to separate the three geographic Corps of the ROC Army and to initiate a drive toward Taipei. Most of the 73rd Group Army served as a blocking force, which advanced to the Da'an River, north of the Taichung metroplex to block any rapid movement by the ROC 10th Corps from intervening in the fight for Taipei. The PLA even moved around the Da'an River to threaten Taichung, but this thrust was blunted.

The other two Group Armies, along with the surviving Marine and Airborne formations, concentrated on Taipei. Taiwan is a constricted environment, mountainous at its center and flat along the coastline. This made it very difficult to maneuver, and compelled the PLA to fight a war of attrition against the ROC 6th Corps, which held the northern part of the Island. There was nothing elegant about the PLA drive toward Taipei; they converged forces, cleared many of the surrounding suburbs, and launched their first attacks on the capital on D+9. They slowly, and methodically fought their way around the northern part of the city, eliminating strongpoints, and slowly encircling the capital. The first part of the capital—the Sanchong District—fell to the 74th Group Army on D+15. The most spirited defense occurred in the Banciao district of the capital, where the Taipei Defense Brigade and multiple 6th Corps Brigades fought off repeated attacks starting on D+9. Banciao held until D+23, a mere hours before Taiwan's capitulation.

- In 2017, the PLAA initiated an ambitious modernization effort which touched all DOTMLPF-P elements. One of the most significant changes was the adoption of the Group Army (similar in size and concept to a US corps), brigade, and battalion structure for its force. These units would be capable of conducting "new-type operations," which emphasize effects-based approaches to warfare to diminish the enemy's capability to fight (systems confrontation), and to quickly achieve objectives. These "new-type units" are intended for a modern battlespace; they are designed to leverage intelligence, surveillance, and reconnaissance (ISR), to secure information advantages, to conduct three-dimensional warfare, and to operate in severely degraded communications environments.¹⁸
- PLAA Group Armies are corps-sized elements that mix a number of CABs with significant enabling capabilities, such as artillery, air defense, aviation, SOF, engineer, electronic warfare (EW), CBRN defense, and combat service support. They were built specifically to support the new CABs, of which there are three general types—light (essentially motorized, based on light vehicles and trucks), medium (mechanized infantry based on infantry fighting vehicles), and heavy (armored brigades equipped with main battle tanks). These units fight as an integrated team, and the result if a modern, capable force, which has significant fires, EW, and fires capabilities.¹⁹

As the campaign progressed, the Joint Force was able to belatedly begin a flow of reinforcements to the theater. These forces were able to perform very well in combat with the PLA. For example, additional

¹⁸ DIA, pages 55-57.

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¹⁹ Bradley A. Marvel, "The Combined Arms Battalion and Combined Arms Brigade: The New Backbone of the Chinese Army," *Red Diamond*, US Army TRADOC, Volume 10, Issue, 3, July-September 2019, pages 30-41.

submarine forces arrived in theater, which successfully screened the REAGAN CVBG, and supported a major naval action in the South China Sea. This battle lasted for three days, and eventually resulted in the destruction of the PLAN aircraft carrier SHANDONG and its battlegroup. Additional USAF assets slowly helped tip the balance in the air, and by D+21, managed to overturn the stranglehold the PLAAF had over the air superiority picture. Furthermore, bombers (B-1B and B-52H) and strike aircraft (namely F-35, F-15E, and US Navy and Marine Corps Super Hornets, along with Australian F-35 and F/A-18s) began striking PLA forces on Taiwan.

The most successful element of the Joint Force throughout the campaign was the deployment of a US Army THAAD battalion to Japan. This unit severely limited the overall effectiveness of the PLARF's missile strikes on Taiwan and Japan. While it could do little against the DF-17 hypersonic missile, it prevented the PLARF from dominating the battlespace with its SRBMs and MRBMs, and kept the overall damage to a minimum. The PLA was able to largely prevent the Joint Force from staging out of Japan with its DF-17s, but it expended its arsenal of these weapons by D+12. US, ROC, and Japanese SOF also had a limited success in targeting these systems in China, which eventually allowed for the Joint Force to converge on Taiwan.

The first US Army ground formations arrived on Taiwan on D+14 (1-82 and 1-101). By D+18, the entire 82nd Airborne and 101st Air Assault Divisions were active on the island. The immediately moved to the front and engaged PLA forces. 1-82 and 3-82 moved into Taipei, and held the northernmost suburb for several days against concerted PLA pressure. As the PLA moved to encircle the city, these brigades launched an attack westward against the PLA encircling force, keeping the LOCs to the capital open. When the PLA sent two fresh CABs to chock off a key tunnel complex west of the capital, the two brigades in Taipei linked up with 2-82 to push them back.

The 101st Air Assault Division took advantage of a window of opportunity created by Allied strike forces on D+19 to launch an attack northward to open the Da'an River line. 1-101 conducted an air assault that destroyed the headquarters of the PLAAF Airborne Corps, and then, in concert with the ROC 10th Corps, trapped a PLAN Marine and Airborne Brigade against the River. A further air assault by 2-101 and 3-101 completed their encirclement, and enabled their destruction. The 101st and ROC 10th Corps then forced crossed the Da'an River and began advancing on the PLA beachhead by D+24.

By D+24, the arrival of additional US forces, particularly USAF strike aircraft and Army ground formations were turning the tide on the ground. The 101st Air Assault Division's breakthrough on the Da'an line and the attack by the 82nd Airborne Division to keep Taipei appeared as if they were going to help turn the tide. However, the significant damage inflicted by the PLA on Taiwan, the utter destruction of Taipei in the fighting around the capital, and the capture of several leading ROC political leaders compelled the Taipei government to capitulate.

The campaign lasted less than a month. The Joint Force and its Allies performed well in all their engagements with the PLA. The PLA was a capable adversary, whose modernization created a peer competitor whose capabilities were in general, on par with US capabilities. In cases where US and PLA forces entered into direct combat with each other, US forces generally prevailed tactically. However, the PLA was able to achieve three key effects which tipped the operational and strategic fight their way:

1. They relied on a time and distance equation that was in China's favor, and then further expanded it through the a surprise ballistic missile strike which mitigated forward deployed

- Allied airpower, and then a sophisticated cyber/information attack against the US Homeland, which caused mass confusion among the civilian population and interdicted the Joint Force's ability to flow reinforcements to the theater.
- 2. The PLA's sophisticated and capable A2/AD capabilities were an obstacle that could not quickly be overcome. These capabilities also were extended by the coup de main operations to seize the outlying island territories in the Spratlys, Paracels, Penghu, and the Ryukyus. The Allies were forced to fight to clear the outlying islands, while the A2/AD capability allowed China to retain all-domain superiority at critical moments in the South China Sea and Taiwan Straits areas.
- 3. The PLA's modernization efforts created a flexible force capable of carrying out its preferred way of war. This force was superior in terms of personnel and capabilities over its ROC adversary, and was on almost-even terms with the US Joint Force. With time and distance in its favor, and while holding all-domain advantages (or at least parity) at critical moments and areas of the battlespace, the PLA was able to wage a successful campaign.

From a tactical perspective, the Joint Force performed admirably. However, at the operational level, the Joint Force could not overcome the time/space problem posed by geography and the adversary's decision of when and how to transition to conflict with the limited forces on hand at the start of the campaign. At the strategic, whole-of-nation level, the US whole-of-government was not successful at defending against the PLA's crippling cyber/information attacks.

Report from the Office of the Secretary of Defense, December 2023.

The events portrayed in this article clearly are fictitious. War games are not intended to predict the future, and any simulation, from the most advanced algorithm-driven game to the commercially available board game I used are flawed instruments. Indeed, although "Next War Taiwan" is judged to be a complex wargame, it by no means comes close to accurately portraying what would happen in a fight between the United States and China over Taiwan. However, as a thought exercise, wargaming can be incredibly valuable. As I argued in my previous piece on wargaming, gaming can help us imagine what a fight could entail. It also demonstrated several key ideas which require additional study. How to protect the Homeland from cyber attacks has become a hot topic in recent weeks. The impact of limited cyber attacks by cyber criminals (state sponsored or not) in the Colonial Pipeline hack demonstrated to the American people how fragile our infrastructure truly can be. In this game, the cyber attack, which admittedly relied on simple rules, likely decided the fight by preventing the early flow of reinforcements to the theater. Overcoming time and space when the enemy has serious A2/AD capabilities is a significant problem that the Joint Force continues to work through. The recent signing of Joint All-Domain Command and Control is a giant step by the Joint Force at dealing with this problem.

But it is the third conclusion, that the enemy is doing more than creating new capabilities, but is forging an armed force with a sound approach to warfare and the people capable of carrying it out that is most telling. This requires the Joint Force to do more than think about capabilities. People and doctrine clearly matter. This game shows that the Joint Force must focus on approaches to warfare that overcome key advantages (time and space) held by our potential adversaries. We must get the operational and strategic level fights right. In such a conflict, the operational art could be the difference between victory and defeat. And at the strategic level, whole-of-nation resilience will take on increasing importance.

Finally, we must do more as an Army and a Joint Force to visualize the whole fight. We tend to focus on the tactical, on brigades and small units. A fight against a peer creates operational and strategic problems that must be solved before our tactical acumen even comes into play. In this game, the US Joint Force won most of the battles in which it engaged. The Army, in particular, did well in action against the PLA. None of it, however, mattered, as the campaign was decided because the operational and strategic problems were never solved. This is why wargaming is so important. It allows us to consider the possibilities to imagine the fight, and perhaps most sobering to consider how an adversary can prevail. In a recent article in *War on the Rocks*, Edward Geist writes, "if the United States is to have a reasonable hope of winning a war, it needs to think very seriously about what it would be like to lose." ²⁰ This game brought some of those issues to life, as I hope the narrative did.

I will conclude with the words of Sir John Hackett, who in 1978, considered the whole conflict, and helped NATO to internalize the idea that it could indeed lose a Third World War against the Soviet Union. His work was a warning and a call to action to make sure it never did:

We who have put this book together know very well that the only forecast that can be made with any confidence on the course and outcome of another world war, should there be one, is that nothing will happen exactly as have shown here. There is the possibility, however, that it could.²¹

²⁰ Edward Geist, "Defeat is Possible," War on the Rocks, 17 June 2021.

²¹ Sir John Hackett, *The Third World War: August 1985"*, New York: MacMillan Publishing Company, 1979; reprint, Berkely Books, 1980.