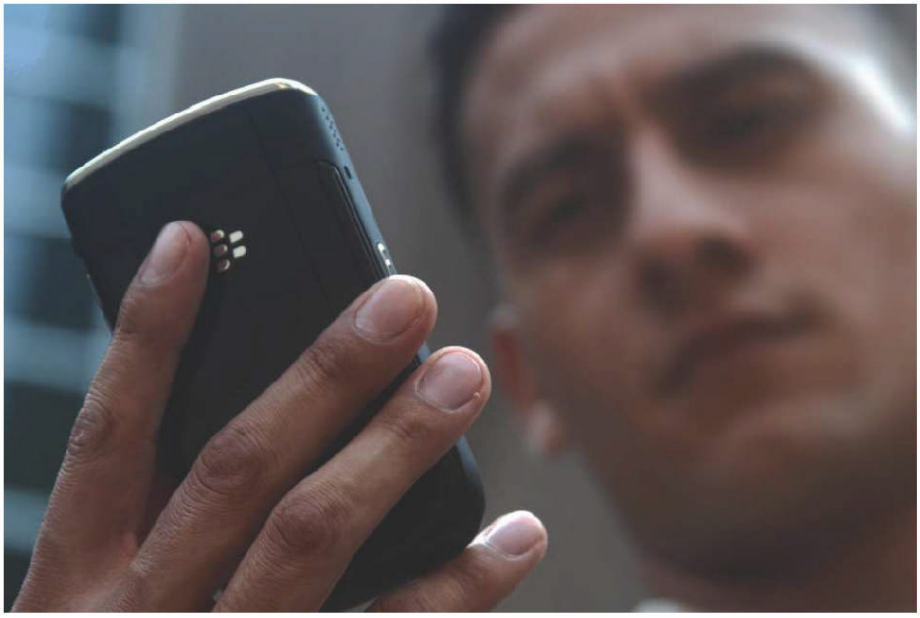
# The Third Battle

## Operations in the South China Sea

by Dr. Benjamin Jensen

*The following is the fourth in a series of fictional accounts of a hypothetical engagement between the Chinese and U.S. militaries in the South China Sea.*[1] *The road to war was first published in the* Marine Corps Gazette *and explained the diplomatic crisis that escalated into an initial battle between China and a U.S.-treaty ally in the region. The second and third articles explored how the fight might occur given the new Marine Corps force design and separate initiatives associated with Mosaic warfare and harnessing complex adaptive swarms.*[2] *This final story is a pre-mortem less about technology and more about political intrigue and human cunning. It specifically takes the position that all technological solutions have vulnerabilities in the clash of wills that defines politics and its continuation in war. Like the previous accounts, the article is based on observations from eight iterations of fighting a joint scenario with participants in the TECOM Warfighting Society and School of Advanced Warfighting as part of their capstone planning exercise series Agile Competition and Agile Response.*[3]

***>Dr. Jensen is a Professor of Strategic Studies at the Marine Corps University and a Reserve Officer in the U.S. Army Reserve 75th Innovation Command. He is also a Scholar-in-Residence at American University, School of International Service, and a Senior Non-Resident Fellow at the Atlantic Council. The views expressed are his own.***



***"Despite traveling dark, in emission control, Sailors and Marines were addicted to the web and snuck peeks at the global coverage of the crisis."*** *(Photo by SSgt Chad Simon.)*

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LtGen Wiggin had not slept in two days. America was not at war, but it did not feel like peace. The Marines and Sailors steaming to the South China Sea had been on constant alert, threatened by a mix of spoofed sensors, sub detections, and the fear of what lay ahead. Chinese submarines and largely unmanned commercial container ships likely operated by People's Liberation Army (PLA) front companies, or hijacked by technical means, kept materializing along their route. Random explosions appeared along their bow, possibly old mines delivered by stealthy submersibles, always close enough to scare younger Sailors but not meant to damage the ship. Some Sailors were cracking under the weight of knowing they were constantly watched and vulnerable. Despite traveling dark, in emission control, Sailors and Marines were addicted to the web and snuck peeks at the global coverage of the crisis. Every time their personal device pinged the network, they received tailored propaganda and messaging.[4] There were even reports of brawls on multiple ships because of deep fakes implying sorted infidelity rings involving many of the Sailors' partners and close friends. Enlisted Marines were overwhelmed by fraudulent Red Cross messages. Naval officers were subject to identity theft and bombarded by angry emails from creditors and concerned families about empty bank accounts. Rumors of extremist groups and white nationalists undermined morale and cohesion across the ranks.

Wiggin pondered his options. Publicly, the treaty ally he was deploying to defend had diplomatically back tracked from the military crisis with China, leaving U.S. forces in a no-win situation. Despite losing aircraft and surface vessels,[5] the U.S. treaty ally ordered their military forces to stand down. Through back channels, they asked the Americans to still deploy in order to deter fur-

ther Chinese military action. Chinese forces still occupied a key island airfield under the auspices of evacuating noncombatants. Worst still, the Chinese had expanded their exclusion zone for that operation to cover large swathes of international waters in a direct challenge to the United States. The move left the Littoral Combat Group (LCG)[6] and forward elements of a Marine Littoral Regiment (MLR)[7] in the engagement zone and at risk of being overrun in the next 24 hours. INDOPACOM wanted Wiggin's joint task force to link up with the LCG for a freedom of navigation operation, knowing full well that the Chinese were almost certain to engage. He was heading to a gun fight where he was overmatched and would not have the element of surprise. Leaders told him he was re-establishing conventional deterrence, but it felt more like walking into an ambush.

The fact was the entire operational plan Wiggin and other officers had worked on for years to address this exact contingency fell victim to a spoiling attack in the gray zone.[8] Chinese firms called in a series of loans while dark pool trading caused a run on the U.S. treaty allies stock exchange and currency.[9] News media buzzed with a series of sordid scandals involving the U.S. military personnel—all lies—but the truth did not matter as salacious lies raced across social media sowing distrust. The political leadership of the U.S. treaty ally had to station additional police around the U.S. embassy once protests started. A wave of cyberattacks originated from servers in a third country hit U.S. businesses, especially firms involved in defense and transportation, but the malicious code carried hallmarks of Chinese operatives.[10] The Chinese had created the conditions that forced America to look like an imperialist aggressor, giving Beijing a strategic fait accompli.

LtGen Wiggin got off a secure call with the Commander, INDOPACOM commanding general. Based on guidance, his task force—which consisted of an Expeditionary Strike Group and additional aviation assets—would proceed with its mission, linking up with the LCG and MLR to conduct a large freedom of navigation operation. They were authorized to use deadly force, with the INDOPACOM Commander restricting any targets on mainland China to avoid inadvertent escalation.[11] The general's words clung to his bones, "we need to re-establish conventional deterrence. We cannot have the Chinese bullying our partners without consequences. Win this battle so we can avoid a protracted war."

Wiggin's opted for a form of armed reconnaissance optimized for a maritime fight. He wagered he could either find a gap in Chinese defenses or buy enough time for political leaders to develop an alternative to armed confrontation. He used loitering drones as a cavalry guard moving in front of his task force.[12] In the best-case scenario, they would force the enemy tor reveal the key links in their sensor-to-shooter network, giving him an opportunity to disrupt their ability command and control (C2) a massive attack against his forces.[13] At a minimum, they would buy him time and space to maneuver.

But the Chinese cluttered the battlespace, leaving a mix of what appeared to commercial fishing vessels, maritime militia,[14] and Type 22 fast attack boats along the maritime red line. Wiggin knew he could also expect subsurface contacts and high-altitude drones as he got closer—all networked to land and air-launched anti-ship missiles, including hyper sonic weapons. He also knew, despite no confirmed contact yet, that his aircraft flying behind the guard force would quickly find themselves engaged with PL-15 air-to-air missiles fired from PLAF stealth aircraft and long-range surface-to-air missiles from artificial islands once the fighting broke out.

He had seen this exact scenario before at a think tank war game years ago. Lobbyists from defense manufacturers and so-called technologists, futurists, and innovation experts—usually brash, young political appointees and pundits—told him how AI would be the key to victory. An all-knowing brain would calculate risk, optimize engagement area development, and reduce the clash of wills to a targeting exercise. AI applications would identify targets and recommend attack options in an effort to break the enemy kill chain.

LtGen Wiggin lived through seeing the military buy and build new AI-enabled weapons that promised speed and decision. He watched as civilian contractors, usually retired colonels, preached old ways of fighting the next war—substituting AI-enabled fires for command relationships and judgment. Over the years, he came to fear the entire American way of war had a technological Achilles' heel. If the enemy revealed its critical requirements, the U.S. military would fire at machine speed without consideration of second and third order effects. The whole system seemed brittle and susceptible to denial and deception.

LtGen Wiggin stirred in his sleep, pulled back into his dream by the buzz or the command deck. They were 30 miles from the LCG and in mutual support range of expeditionary advanced bases (EABs) established by the MLR. Screens bled red with multiple contacts, a mix of missiles from the sea and air targeting his surface combatants and EABs. His advanced guard loitering munitions communicated with space-based sensors and long-endurance UAVs, passing radar tracts to a War Cloud, a cloud-based AI application that left Wiggin with a computer-generated choice: engage now or risk losing 50 percent of your formation in the next 30 minutes.[15] It did not really feel like a choice. In fact, he had seen other commander's relieved for not acting on AI-generated course of actions.

He looked at the screen, only seconds had passed but already staff in the combat operations center were tense, repeatedly asking him "permission to engage sir. War Cloud says we have a window." "What are your orders, sir; we need to move now." His gut grew tense and his neck stiffened. Wiggin was reluctant but felt he had no choice. "Execute War Cloud's optimal strike package." It was done.

Wiggin saw the command screen flash blue and trace a series of hypothetical attack trajectories, all shifting as war cloud managed the counterattack and defensive measures simultaneously. His crew broke into applause, with some younger Sailors who had never seen combat getting almost euphoric, shout-

ing "hell yeah." They all thought the battle was over and all he had done—all they had done—was press a button.

Pressing that button was not cheap. Over the past decade, War Cloud ended up being so expensive that the Navy reduced the number of ships in its inventory. It turned out that training an AI-enabled cloud required constant intelligence updates that trained pattern-recognition algorithms to recognize enemy aircraft, ships, and combat formations under different weather conditions and radar tracks. It turned out that War Cloud had an insatiable appetite for data and collecting that data proved time consuming and costly. To make matters worse, legacy contracting processes and regulations left U.S. defense vendors reluctant to share data. Cost overruns were rampant, and the entire DOD lacked the ability to freely exchange data limiting its ability to optimize U.S. defense processes much less fight futuristic enemies in dynamic, real world settings. The bureaucracy proved to be more resilient than the promise of algorithmic warfare.

Wiggin snapped back to sounds of his attack going horribly wrong. A Sailor spoke first, cutting through the cross talk, "It's not working sir." The blue arches of U.S. missiles from EABs and attacking loitering munitions started to dissolve on the screen. He pulled up an imagery feed. Most of the munitions were hitting decoys or narrowly missing PLA missile boats. Age-old deception practices and simple maneuvers were too much for War Cloud to adapt to after firing. Worst still, the Chinese used calculations from the attack to vector in pre-launched cruise missiles at the EABs. The MLR was devastated. Marines watched their equipment stores and fuel depots burn, knowing that dispersed and reduced to small arms they were not even worth the Chinese attacking. Chinese special operators appeared to finish the job using improvised defeat mechanisms. The remaining Marine unmanned assets were getting beat by old fashion techniques like high-flying kites with hundreds of wires and fishing nets at sea.

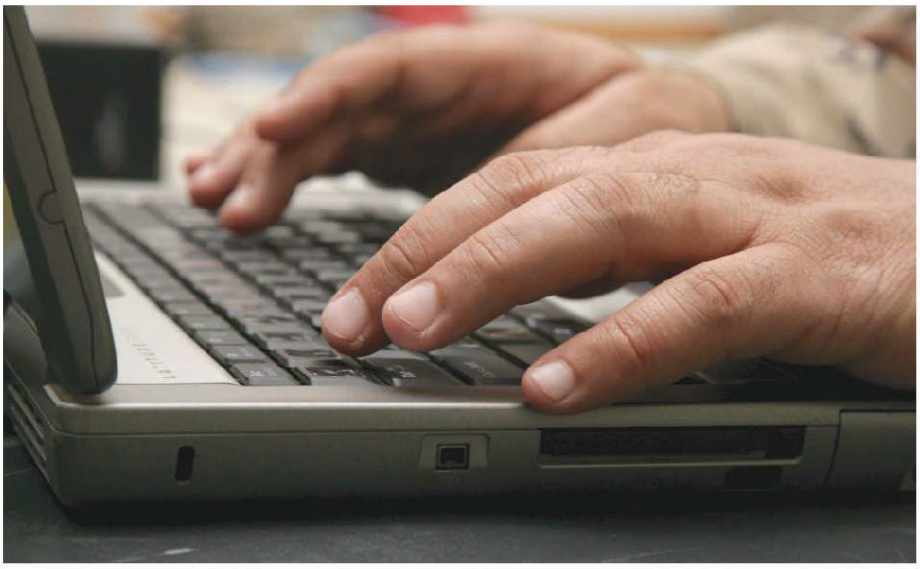
War Cloud opened a screen and presented Wiggin with another Hobson's choice: disengage or risk losing 65 percent of his combat power. Wiggin looked at sterile letters on the screen. Only twenty minutes earlier, he was supposed to attack. It was easy for a machine to change its mind and forgot the past, hard for the commander who had to write letters to the families of dead Sailors and Marines.

His intelligence officer's voice cut through the noise of the combat operations center, "we have a problem, sir." Videos of the battle were being manipulated and spread across social media in realtime. The Chinese were claiming that the United States pre-emptively attacked peaceful Chinese forces. They were giving all U.S. forces 24 hours to leave the area and threatening to attack U.S. forces across the region if they did not. The stories were tailored propaganda, too good for users not to share. Lies had no weight; even the slightest push and they traveled far and wide. The effect was immediate, bots tracking social media showed a 33 percent drop in public opinion for the United States globally with projections it could fall even further over the next 24 hours. He received word from INDO-PACOM to pull back and wait for further guidance. INDOC-PACOM also wanted to peel off the MEU that was traveling with ESG to reinforce multiple embassies in the area. Protests against the United States were increasingly likely and planning for non-combatant evacuations was already underway. He was left with just enough forces to collect the dead. China even used this as a propaganda opportunity, staging its hospital ships to receive kidnapped Americans wounded in the attack and showing them drugged and thankful for "Xi's mercy."

***Wiggin "used loitering drones as a cavalry guard moving in front of his task force."*** *(Photo by Becki Bryant.)*

Allies and partners were also quietly in retreat. Cabinet officials called their counterparts in the United States, all expressing concern but calling for calm. While the attack was underway, the Chinese had opened a separate front. Customs officials impounded goods from major firms while currency markets and bond yields fluctuated, hit by mysterious trading and speculation that China might use its economic reach to coerce smaller states. Wiggin remembered hearing a school classmate from a partner nation once bemoan the fact that his country was reliant not just on Chinese trade but also on Chinese students. The fact was interdependence gave the Communist Party a thousand levers to pull that made military threats less necessary.

In the end, World War III was nothing more than a small skirmish around some of the last few sparsely populated islands on the planet. There were no



***Can any machine, no matter how well-designed, well-programmed, and capable of machine learning, be able to adapt in the complex dynamic and unpredictable environment of war?***
***(Photo by LCpl David Flynn.)***

mushroom clouds, no statues of heroes, no fanfare. The world seemed to live more in what could happen than what actually transpired.

Over the next 30 days, pundits and strategists from competing political parties in America did more to exploit the attack than Chinese forces. Each side blamed the other filling hours of talk shows and flooding the web with bitter memes and conspiracy theories. In the investigations that followed, Wiggin was vindicated but then again so was War Cloud. No one stopped to ask if a machine, no matter how exquisite, could adapt as fast the nonlinear complex system that is war—Clausewitz's two wrestlers fighting blind and pulled by politicians and screaming masses. Lobbyists from defense firms twisted the engagement to call for additional defense funds to release War Cloud 2.0.

Wiggin turned to his side, still lying-in bed. He knew he was awake, but his dream cast a shadow over his thoughts. He could see himself waking up in that world, half broken and lost. He could see the faces of all the Marines and Sailors he let down. He took a deep breath. Today was not that day, and it was time to find a way out of this trap.

**Notes**

1. Benjamin Jensen, "The Crisis: Operations in the South China Sea," *Marine Corps Gazette*, (February 2020), available at https://mca-marines.org.

2. Benjamin Jensen and Rob Spodarek, "The First Battle," *Marine Corps Gazette*, (Quantico, VA: March 2021); Benjamin Jensen and Rob Spodarek, "The Second Battle," *Marine Corps Gazette*, (Quantico, VA: April 2021); and Benjamin Jensen and John Paschkewitz, "Mosaic Warfare: Small and Scalable are Beautiful," *War on the Rocks*, (December 2019), available at https://warontherocks.com.

3. Benjamin Jensen and LtCol Matthew Van Echo, "You Can Teach a Marine Deterrence: Understanding Coercion Requires Changing PME," *War on the Rocks*, (June 2020), available at https://warontherocks.com.

4. Staff, "Sinister Text Messaging Reveal High-tech Front in Ukraine War," *Voice of America*, (May 2017), available at https://www.voanews.com.

5. Ibid; and "The Crisis."

86. Megan Eckstein, "Navy Tests 'Littoral Combat Group' Concept That Pairs DDG, LPD in South America Deployment," *USNI News*, (January 2019), available at https://news.usni.org.

7. Megan Eckstein, "Marines Testing Regiment at Heart of Emerging Island-Hopping Future," *USNI News*, (June 2020), available at https://news.usni.org.

8. Michael Green et al., *Countering Coercion in Maritime Asia*, (Washington, DC: CSIS, 2017).

9. Christina Lai, "Acting One Way and Talking Another: China's Coercive Diplomacy in East Asia and Beyond," *The Pacific Review*, (Milton Park: Taylor and Francis, July 2017).

10. Aaron Brantley, *The Cyber Deterrence Problem*, (Lanham, MD: Rowman & Littlefield Publishers, 2018); and Benjamin Jensen, E. Borgehard, and B. Valeriano, *U.S. Cyberspace Solarium Commission*, (Washington, DC: U.S. Congress, 2020).

11. Caitlin Talmadge, "Would China Go Nuclear? Assessing the Risk of Chinese Nuclear Escalation in a Conventional War with the United States," *International Security*, (Cambridge, MA: MIT Press, Spring 2017).

12. Tamir Eshel, "IAI Introduces a Loitering Weapon Optimized for Maritime Attack," *Defense Update*, (September 2017), available at https://defense-update.com.

13. John Stillion and Bryan Clark, *What It Takes to Win: Succeeding in 21st Century Battle Network Competition*, (Washington, DC: CSBA, 2015).

14. Shinji Yamaguchi, "Strategies of China's Maritime Actors in the South China Sea: A Coordinated Plan under the Leadership of Xi Jinping?" *China Perspectives*, (Hong Kong: French Centre for Research on Contemporary China, 2016).

15. Jaspreet Gill, "Army Developing Cloud-Based AI Ecosystem to Be Used Across Service," *Inside Defense*, (November 2020), available at https://insidedefense.com; and Benjamin Jensen, Christopher Whyte, and Scott Cuomo, "Algorithms at War: The Promise, Peril, and Limits of Artificial Intelligence," *International Studies Review*, (Oxford: Oxford University Press, September 2020).

*>Editor's Note: The authors wish to dedicate this series of articles to the memory of Col Arthur J. Corbett, USMC(Ret) who passed away suddenly on 3 February 2021. Col Corbett was the intellectual driving force and principal author behind many Marine Corps Concepts including Expeditionary Advance Base Operations. Semper Fidelis.*