The Kill Chain: A new era of world war

Shuvu Batta 29 August 2020

The Kill Chain: Defending America in the Future of High-Tech Warfare by Christian Brose is a book with an intended audience within the Pentagon and the arms industry, "Ringing the alarm" for US imperialism's need to make a rapid and qualitative development of its military in order to achieve its ambition of global hegemony.

Brose, a former staff director of the Senate Armed Services Committee, begins his book describing a conversation he had with the late Republican Senator John McCain on the form that an increasingly likely war between the United States and China would take:

America's forward bases in places like Japan and Guam would be inundated with waves of precise ballistic and cruise missiles.

[United States] carriers and their escort ships might shoot down some of the missiles, but there would be so many that some could get through and knock the carriers out of the fight by cratering their flight decks, damaging their control towers, or destroying their aircraft before they even got airborne. It is also possible that a hit could be fatal, sending five thousand Americans and a \$13 billion ship to the bottom of the ocean...

McCain and I paused and considered the potential scale of this disaster. Thousands of Americans lost in action. American ships sunk. Bases reduced to smoking holes in the ground. Aircraft and satellites shot out of the sky. A war that could be lost in a matter of hours or days even as the United States planned to spend weeks and months moving into position to fight.

Why would such a war break out? Brose writes:

China is becoming America's peer, and it could become more than that. It is integrated into the global economy and developing its own domestic sources of technological development, not just copycat industries but increasingly innovative and world-leading companies. China has already surpassed the United States in purchasing power parity, and it is projected to have the world's largest gross domestic product by as early as 2030. The last time the United States faced a competitor, or even a group of competitors, with greater economic power than its own was in the nineteenth century, before our own rise to global predominance. And when it comes to China's potential to generate even greater power, the United States has never faced a challenge of that scale in its entire history...

The Chinese Communist Party aims to become the dominant power in Asia and in the world, and it believes that for China to win, America must lose. We have to lose the race for advanced technology. We have to lose jobs and influence in the global economy. We have to lose partners who share our interests and values. We have to lose the ability to stand in the way of the Chinese Communist Party's desire to make more of the world safe

for its model of high-tech authoritarianism. And as the balance of power continues to shift out of America's favor, the Chinese Communist Party will likely become more expansive in its ambitions, more assertive in its pursuit of them, and more capable of getting its way, no matter how much that harms Americans.

Increasingly concerned over China's economic development and terrified by its rapid technological advances, which put a question mark on the Washington's "overwhelming" military superiority, Brose and McCain wrote a letter in October 2017 to then-Secretary of Defense James "Mad-Dog" Mattis on the topic of the National Defense Strategy:

"We no longer enjoy the wide margins of power we once had," the letter argued, because America's military advantage had "declined precipitously" as great-power competitors, primarily China, were modernizing their forces and eroding America's military dominance. "We cannot do everything we want everywhere," it stated. "We must choose. We must prioritize." And though money was vital, we could not "buy our way out of our current predicament." The new defense strategy, McCain wrote Mattis, was "perhaps the last opportunity to develop an effective approach" to China before it was too late.

Brose's staff met regularly with Mattis' staff, and the emphasis on preparing and executing a massive overhaul of the US military, with focus on integrating the latest developments in information technology, was a cornerstone of the 2018 National Defense Strategy, which built on the National Security Strategy announced by the Trump Administration in December 2017. The document clearly announced the revival of "Great-Power Conflict," i.e., preparation for a Third World War, with particular focus on China.

The Defense Strategy calls for building a more lethal force, with emphasis on modernizing key capabilities of nuclear forces, space and cyberspace, missile defense, and in particular, command, control, communications, computers and intelligence, surveillance, and reconnaissance (C4ISR), as well as autonomous systems.

Brose reveals in his book that, over the past several decades, the United States military machine, serviced through a network of defense contractors, lobbyists and Congressmen, has gobbled up trillions of dollars, accumulating an excess of fat rather than muscle. Vast sums were directed into money-pits like the F-35 and incremental hardware upgrades to outdated systems, whereas rival militaries like that of China were utilizing the developments in data-technology to create a "smarter" military, one which can close the "kill chain" at lightning speed.

The kill chain and the "Information Revolution"

According to Brose, the kill chain is a military term linked to the "Information Revolution" starting in the 1980s; it means the process of analysis, planning, and execution. Prior to the Information Revolution, the

kill chain was localized to single military platforms, for example "the process of understanding where an enemy aircraft was, deciding what to do about it, and then acting against it all occurred within one fighter jet or air defense system." The Information Revolution, which had as its foundation the development of the integrated circuit, has led to further world-historic developments—primarily the development of the internet and artificial intelligence. What these technologies allow for is "networked warfare"; a network of nuclear missiles, for example, can all be directed under one system, some under autonomous control.

Brose is now the head of strategy for Andruil Industries, which states that it is a tech company composed of "a team of experts from Oculus, Palantir, General Atomics, SpaceX, Tesla and Google exploiting breakthroughs in consumer and commercial technology" specifically for military purposes. While the US military has been slow to integrate the latest developments in data technology and AI, Silicon Valley-based tech firms have been pioneers in this field. Having achieved a high level of centralization, they are moving closer and closer towards the state.

Brose in large part has written the book in order "bring home" the prodigal son; help return Silicon Valley to the US military from which it traces its origins. As historian Margaret O'Mara has observed, "Defense contracts during and after World War II turned Silicon Valley from a somnolent landscape of fruit orchards into a hub of electronics production and innovations ranging from mainframes to microprocessors to the internet."

Arguing for the military potential of consumer technology, Brose writes:

Many American homes are now fitted with a network of low-cost sensors made by companies such as Nest (owned by Google) and Ring (owned by Amazon) that give one person with a mobile device real-time situational awareness of their most important places, whereas the average US military base is still defended by large numbers of people either standing watch or staring at rows of video surveillance monitors, stacked up like Hollywood Squares. Similarly, many Americans drive vehicles equipped with sensors that tell them everything that is going on around the vehicle at all times, whereas most American military vehicles do not have the same capabilities.

He further notes the increasing monopolization of Silicon Valley:

Over the past fifteen years, major technology companies have bought dozens of technology start-ups: Facebook, for example, has bought Instagram, WhatsApp, and Oculus VR, among others, while Google has bought far more, including Android, YouTube, Waze, Nest, and DeepMind.

This process has been accompanied by the tech giants' rapid integration with the US military and intelligence apparatus. Research published on July 7, 2020 by the technology accountability nonprofit Tech Inquiry revealed that the Department of Defense and federal law enforcement agencies, including Immigration and Customs Enforcement, the FBI, the Drug Enforcement Agency and the Federal Bureau of Prisons, have secured thousands of deals with Google, Amazon, Microsoft, Dell, IBM, Hewlett Packard, and Facebook, among others.

Microsoft is currently the leader in gobbling up government contracts and has also seemingly won the battle for the \$10 billion JEDI contract with the Pentagon, which will overhaul the military's internet infrastructure. However, this is currently in dispute, as its rival Amazon

has obtained a federal court order halting the contract for review. Amazon recently announced the establishment of a space unit called Aerospace and Satellite Solutions, led by former US Air Force Major General Clint Crosier. The unit is responsible for the development of rocket launches, human spaceflight support, robotic systems, mission control operations, space stations, satellite networks and more. Bezos' space company Blue Origin also has a NASA contract worth \$579 million.

The US military has also encouraged smaller startups to get in on the action. The US Air Force has selected 54 smaller companies to "develop, test and integrate new capabilities for the Advanced Battle Management Systems (ABMS)." The ABMS aims to develop an "internet of things" where systems in all domains (air, land, sea, space, cyber, and electromagnetic spectrum) can connect to disseminate information to personnel.

The startup SpaceX, owned by billionaire Elon Musk, recently launched NASA astronauts into space, marking a new era of public-private partnerships. On May 20, SpaceX signed a three-year deal with the US military to test the company's "Starlink" program, which aims to "build a constellation of small satellites in low-earth orbit that can deliver high-speed communications and data networks to every part of the planet at all times."

Over the past several years, private US companies have sent numerous satellites into space, with plans to launch tens of thousands more.

Brose writes:

From hundreds of miles away, commercial satellites can see objects on Earth in minute detail, and they may soon be able to identify individual faces. The number of these satellites grows by the hundreds every year. Silicon Valley is largely responsible for soon-to-be thousands of small satellites that will create an unblinking eye over the entire Earth, resulting in more real-time surveillance of the planet than ever before. Indeed, the National Geospatial-Intelligence Agency, a US intelligence agency that currently has a total of 14,500 personnel, recently estimated that it would need more than 8 million people just to analyze all of the imagery of the globe that will be generated in the next twenty years.

The data gathered by the sharp mechanical eyes of satellites in space is being increasingly used to surveil the world for the primary purpose of repression and war; the capitalist class has wrapped the Earth in "The Kill Chain."

The threat of a Third World War

The US military's plans for "Great-Power Conflict," primarily with China, have reached an extremely high level. The US ruling class is aware of its inadequacies and, while masses of American workers confront poverty, is spending trillions to prepare for the eruption of World War III.

A simulation called "Plan A" by researchers at Princeton's Program on Science and Global Security, shows how the use of one so-called tactical or low-yield nuclear weapon could lead to a global nuclear war which would result in over 90 million deaths and injuries within three hours. At our current stage, the outbreak of war will quickly become a world catastrophe. The development of "battle networks" and long range missiles means that weapons capable of leveling entire cities and countries will be deployed in practically a flash.

War will take place on all fronts, from the seas, the earth, and the heavens. With the use of nuclear weapons, over 7.5 billion human beings, themselves the product of billions of years of historical development, could be destroyed in a matter of days.

The true implication of war is never uttered in Brose's book. He, alongside the capitalist class which he represents, is driven by the imperative of securing US profit interests. They see war as a means to stop China's economic expansion, exemplified by the "Belt and Road Initiative," thus removing its main rival and conquering the world market. Meanwhile the Chinese capitalists cannot halt their aims for expansion because they too are driven by the need to accumulate profit. Thus they have resorted to building up their military arsenal to "defend" themselves from the US. However, in the era of nuclear weapons, there is no such thing as defense, simply Mutually Assured Destruction.

The great revolutionary Leon Trotsky delivered a speech in 1926 to the First All-Union Congress of the Society of Friends of Radio, explaining why capitalism is incompatible with the needs of humanity:

I remember a time when men wrote that the development of aircraft would put an end to war, because it would draw the whole population into military operations, would bring to ruin the economic and cultural life of entire countries, etc. In fact, however, the invention of a flying machine heavier than air opened a new and crueler chapter in the history of militarism. There is no doubt that now, too, we are approaching the beginning of a still more frightful and bloody chapter. Technique and science have their own logic—the logic of the cognition of nature and the mastering of it in the interests of man. But technique and science develop not in a vacuum but in human society, which consists of classes. The ruling class, the possessing class, controls technique and through it controls nature. Technique in itself cannot be called either militaristic or pacifistic. In a society in which the ruling class is militaristic, technique is in the service of militarism.

Within little more than a decade, the most terrible bloodbath in history, World War II, began, destroying over 70 million lives. Humanity is now threatened with a war of incomparably greater magnitude.

The National Security Strategy document states, "The Internet is an American invention, and it should reflect *our* values as it continues to transform the future for all nations and all generations."

The reality is that the internet and technology in general are a collective product of human labor, which transcends all nations, races, and ethnicities. While the capitalist class advances the politics of nationalism and division, of which war is the most extreme form, the working class must advance the politics of unity, breaking down all national divisions, uniting workers of every country in a common struggle to put an end to capitalism and create a world where science is developed not in service of war, but to ensure peace and prosperity for all.



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