U.S. Competition with China and Russia:

Gray Zone, Hybrid Warfare, and Multi-Domain Warfare

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U.S. Strategic Competition with China and Russia in Gray Area, Hybrid, and Multi-Domain Operations

"If your enemy is secure at all points, be prepared for him. If he is in superior strength, evade him. If your opponent is temperamental, seek to irritate him. Pretend to be weak, that he may grow arrogant. If he is taking his ease, give him no rest. If his forces are united, separate them. If sovereign and subject are in accord, put division between them. Attack him where he is unprepared, appear where you are not expected." — Sun Tzu, The Art of War

There is a natural tendency in national security to focus on the military dimension while limiting the attention given to civil challenges only to the extent of domestic politics, trade, or international finance. Organizations, including combatant commands and government agencies, focus solely on their area of expertise.

The present U.S. focus on large-scale war fighting against China and Russia is also partly the heritage of both American engagements in the two World Wars and a reaction to the massive nuclear and theater warfare threats that emerged during the Cold War from 1947 to 1991. At the same time, it has been shaped by frustrations from engaging in two long wars that were driven by counterterrorism and extremism since 9/11.

It is not surprising, therefore, that the rise of China and the return of a Russian threat since 1991 have led the United States to return to a Cold War-like focus on major wars with an emphasis on nuclear forces in order to prepare for levels of theater conflict that could escalate to mutual assured destruction (MAD). These are areas where the U.S. has seen its past lead erode, where both China and Russia continue to make improvements in their forces, and where history warns that nations repeatedly miscalculate and escalate to the self-destructive levels of conflict regardless of the risk.

Preparing for major wars, however, is only one military aspect of the ongoing Chinese and Russian competition with the United States. In fact, the failure to deter a general war would likely end in the equivalent of massive damage and to the de facto defeat of all the powers engaged. China and Russia understand this, and their competition focuses on a civil basis or at lower levels of gray area and hybrid operations, which involve far less risk and make a real strategic victory possible.

Unlike Nazi Germany, Imperial Japan, and the former Soviet Union, China and Russia recognize that even an escalation to a major regional conflict is likely to be more costly to all the parties involved than its gains are worth. Occasional bursts of rhetoric aside, there is no ideological imperative to drive China or Russia to take such risks.

Having a more authoritarian government – with central authority over the military and every aspect of domestic security – that can exploit the civil economic sector and operate outside the norms which limit the United States also offers China and Russia an important advantage. The United States is facing opponents with very different levels of state control, public accountability, and economic systems from the U.S. – including the ability to use force with far less regards to the rule of law.

One of the key reasons why the U.S. has been slow to react to these realities is because the United States does not have such a state-driven political system and economy. The U.S. relies on democratic competition between political factions, free-enterprise economics, and the priorities set by blocs of voters. It sees military power largely in terms of deterrence and defense, as well as the ability to react to outside military threats.

As a result, the United States largely separates national security strategy into political, military, and economic compartments. U.S. politics have focused on topical domestic issues, and it rarely addresses long-term civil strategy beyond a broad support for democratic systems and values.

The U.S. may regularly issue strategy documents, but its diplomacy has normally been driven by short-term needs and crises, and it has rarely focused on long-term strategies to enhance U.S. power abroad. The U.S. economy is regulated but also driven by private businesses and investment. The U.S. government does not control or have the capability to directly manipulate key parts of the economy, and it especially does not seek to exploit that control to directly influence or defeat other states.

When it comes to the military dimension, the American political system often leads U.S. military planning to be driven by immediate or near-term term military priorities. At the same time, the comparative isolation of American defense planning from its civil politics and economic sector has led to a focus on using U.S. power to deter or "win" worst-case wars.

Broadening the Definition of Gray Area, Hybrid, and Irregular Operations

This does not mean that U.S. strategists have not addressed such issues, and there is a surprising amount of theory that attempts to precisely define the different aspects of U.S., Chinese, and Russian civil-military competition and conflict. This has led to many debates over exactly how to define terms like "Gray Area," "Hybrid," "Irregular", and "Multi-domain" warfare. In some ways, such debates are just as counterproductive as trying to separate the military and civil dimension of Chinese and Russian competition.

The fact remains that there is no way to precisely define the differences between such operations, and a focus on creating a taxonomy which assumes that such rules exist is counterproductive. The history of war is at least as much the history of irrational decisions, unpredictable attacks, and escalation as it is the result of the dictates from a prewar strategy. Today, this risk of irrational behavior is being steadily increased by major changes in great power relationships, the individual civil and military actions of great powers and lesser states, as well as the major shifts in military technology that have unpredictable real-world impacts.

Moreover, global competition means that most of the competition between the three great powers actually takes place in other countries. The United States and China – and to a lesser extent the United States and Russia – are involved in a constant process of both civil and military competition on a global basis where they may not use their own forces at all – or use them in very limited ways – and where economic competition may be more critical over time than military competition.

These broad streams of competition do not fit a narrow focus on the United States, China, and Russia – and they do not preclude many areas of cooperation and compromise between the competing powers. In many cases, specific areas of competition are shaped by opportunism and a process of action and interaction that will never fit any given attempt at military taxonomy or efforts to develop a clear doctrine.

Nevertheless, these theories deserve attention. Irregular warfare operations first garnered recent popular attention when Frank G. Hoffman labeled it as "hybrid war" in his 2007 *Conflict in the 21st Century*. He has since then revised his definition in 2009 to describe "hybrid warfare" as:¹

Any adversary that simultaneously and adaptively employs a fused mix of conventional weapons, irregular tactics, terrorism and criminal behavior in the battle space to obtain their political objectives.

Hybrid warfare is also interchangeably used with the term "gray zone operations," which Hoffman defines as,²

Those covert or illegal activities of non-traditional statecraft that are below the threshold of armed organized violence; including disruption of order, political subversion of government or non-governmental organizations, psychological operations, abuse of legal processes, and financial corruption as part of an integrated design to achieve strategic advantage.

In 2013, the Chief of the General Staff of the Russian Federation's Armed Forces, General Valery Gerasimov, gave a speech that was recognized by many U.S. academics for defining the Russian understanding of irregular warfare known as "non-linear warfare," which is when,³

Wars are no longer declared, and having begun, proceed according to an unfamiliar template...the role of non-military means of achieving political and strategic goals has grown, and in many cases, they have exceeded the power of force of weapons in their effectiveness. The focus of applied methods of conflict has altered in the direction of the broad use of political, economic, informational, humanitarian, and other non-military measures — applied in coordination with the protest potential of the population. All this is supplemented by military means of a concealed character, including carrying out actions of informational conflict and the actions of special operations forces.

It is important to note, however, that Gerasimov's article has been incorrectly labeled as the "Gerasimov doctrine," and the Russian understanding of "non-linear warfare" has been recognized by many scholars and strategists to be a mirror image of Russia's perception of U.S. activities in the irregular warfare domain.

In 1999, the Russian Major-General Vladimir Slipchenko believed that "sixth generation warfare" – or "no contact warfare" – would result in the next evolution of warfare that would become distant warfare that did not require contact.⁴ The transition to "sixth generation warfare" calls for technological advancement to ensure strategic leverage with limited conventional forces in a contemporary world that uses nuclear weapons.

Also in 1999, two Chinese military analysts released a Chinese version of irregular warfare operations and labeled it as "unrestricted warfare." Colonel Qiao Liang and Colonel Wang Xiangsui describe unrestricted warfare as,⁵

... a war that surpasses all boundaries and restrictions. It takes nonmilitary forms and military forms and creates a war on many fronts. It is the war of the future.

The Chinese use of "unrestricted warfare" has been further analyzed and sometimes referred to as "quasi warfare," which is marked by the "three non-warfares: non-contact (*fei jierong*), non-linear (*fei xianshi*), and non-symmetric (*fei duicheng*)."

Non-contact (*fei jierong*) is warfare conducted in which the more advanced side is outside the immediate geographical zone of the enemy's weapons, and therefore impervious to strikes while also retaining the ability to conduct its own direct strikes on the enemy. Non-linear (*fei xianshi*) is warfare that has no distinguishable battlefield due to the advancement of technology and codependent nature of the relationship between the sides – and it is usually carried out over the information space. Non-symmetric (*fei duicheng*) is warfare that engages the adversary in every strategic aspect with the use of limited military resources.

The U.S. commands and the Department of Defense (DoD) have also formally acquired their own term of "multi-domain operations" (MDO), which the 2017 Report released by the U.S. Army Training and Doctrine Command defined as,⁷

Multi-Domain Battle is an operational concept with strategic and tactical implications. It deliberately focuses on increasingly capable adversaries who challenge deterrence and pose strategic risk to U.S. interests in two ways. First, in operations below armed conflict, these adversaries employ systems to achieve their strategic ends over time to avoid war and the traditional operating methods of the Joint Force. Second, if these adversaries choose to wage a military campaign, they employ integrated systems that contest and separate Joint Force capabilities simultaneously in all domains at extended ranges to make a friendly response prohibitively risky or irrelevant.

The U.S. Army Training and Doctrine Command later released a revised version in 2018, shown in **Chart One**, which outlines the following:⁸

- Central idea. Army forces, as an element of the Joint Force, conduct Multi-Domain Operations to prevail in competition; when necessary, Army forces penetrate and dis-integrate enemy anti-access and area denial systems and exploit the resultant freedom of maneuver to achieve strategic objectives (win) and force a return to competition on favorable terms.
- Tenets of the Multi-Domain Operations. The Army solves the problems presented by Chinese and Russian operations in competition and conflict by applying three interrelated tenets: calibrated force posture, multi-domain formations, and convergence. Calibrated force posture is the combination of position and the ability to maneuver across strategic distances. Multi-domain formations possess the capacity, capability, and endurance necessary to operate across multiple domains in contested spaces against a near-peer adversary. Convergence is rapid and continuous integration of capabilities in all domains, the EMS, and information environment that optimizes effects to overmatch the enemy through cross-domain synergy and multiple forms of attack all enabled by mission command and disciplined initiative. The three tenets of the solution are mutually reinforcing and common to all Multi-Domain Operations, though how they are realized will vary by echelon and depend upon the specific operational situation.
- Multi-Domain Operations and strategic objectives. The Joint Force must defeat adversaries and achieve strategic objectives in competition, armed conflict, and in a return to competition. In competition, the Joint Force expands the competitive space through active engagement to counter coercion, unconventional warfare, and information warfare directed against partners. These actions simultaneously deter escalation, defeat attempts by adversaries to "win without fighting," and set conditions for a rapid transition to armed conflict. In armed conflict, the Joint Force defeats aggression by optimizing effects from across multiple domains at decisive spaces to penetrate the enemy's strategic and operational anti-access and area denial systems, dis-integrate the components of the enemy's military system, and exploit freedom of maneuver necessary to achieve strategic and operational objectives that create conditions favorable to a political outcome. In the return to competition, the Joint Force consolidates gains and deters further conflict to allow the regeneration of forces and the re-establishment of a regional security order aligned with U.S. strategic objectives.

Multidomain Warfare and Multidomain Operations

In this study, terms like "gray zone," "hybrid," and "irregular" are used to describe many forms of hegemonic competition and many operations that do not involve any form of combat. For the purposes of this analysis, these terms can refer to any range of action from non-violent economic manipulation to low levels of violence using mercenaries. They can involve changes in deployment, basing, advisory missions, arms transfers, or military exercises; claims to military zones; use of sanctions and trade barriers; economic warfare; technological competition; information warfare; support of other states and non-state actors; and other forms of competition designed to gain strategic and tactical advantage as part of the current competition between the United States, China, and Russia.

This approach meets many of the criteria for multi-domain battle that is part of the definition used by the U.S. Army Training and Doctrine Command (TRADOC):⁹

Multi-Domain Battle requires converging political and military capabilities – lethal and nonlethal capabilities – across **multiple domains** in time and space to create windows of advantage that enable the Joint Force to maneuver and achieve objectives, exploit opportunities, or create dilemmas for the enemy.

Multi-Domain Battle necessitates that the U.S. view the operating environment, potential adversaries, and their capability sets from a different perspective. We must define the warfighting problem based on the complexities of the modern battlefield, the rate of change in terms of information access and decision, and the role that non-traditional or proxy/hybrid actors play to shape operations, especially prior to armed conflict. Multi-Domain Battle requires the ability to maneuver and deliver effects across all domains in order to develop and exploit battlefield opportunities across a much larger operational framework. It must include whole-of- government approaches and solutions to military problems and address the use of multinational partner capabilities and capacity.

Multi-Domain Battle entails collaboration and integration of comprehensive effects and enablers. The rapid pace of modern conflict requires a mission command construct for executing Multi- Domain Battle that includes common networks, tools, and knowledge products. It also necessitates mission orders, shared understanding and visualization of the battlespace, and subordinate commanders executing operations with disciplined initiative within the senior commander's guidance that is empowered from above. Command and control is only a component of that philosophy.

To conduct Multi-Domain Battle, all domains and warfighting functions are integrated to deliver a holistic solution to the problem. Federated solutions will not work. We need a comprehensive, integrated approach inherent in our forces.

The problem with this definition, however, is that battle will only be a fragment of such operation. Many – and probably the vast majority – of actual multi-domain operations will not involve the actual use of military force in direct combat between the three major powers. Multi-domain operation will often be entirely civil or economic – using non-military means to achieve a strategic or tactical objective. It many other cases, the use of military forces will be demonstrative, involve sharply limited operations, or be direct entirely or largely in support of other state or non-state actors. Multi-domain operations will be the tools of Sun Tzu rather than Clausewitz.

It is equally important to note that such operations will be part of an enduring process of competition – and sometimes confrontation – between the U.S. and China, Russia, or both China and Russia that will occur indefinitely into the future in many different ways and at something approaching a global level.

Many such operations will be part of a "culture" of competition that is initiated and executed on something approaching a government-wide level without some master plan or detailed level of coordination. Some — like information warfare using the Internet or many lower-level industrial and technical espionage will require mass efforts or be conducted on a target of opportunity level. This is clear from the number of lower level Chinese and Russian actors that have been identified in open source background briefings, and in the number of reports on commercial, cultural, media, and trade efforts that are not associated in any way with the Chinese or Russian military.

In fact, one of the key issues for the U.S. is first how to develop intelligence and analysis capabilities capable of tracking the full pattern of diverse Chinese and Russia civil-military competition, and assessing relative impact, risk, and need for countermeasures. One the key question the U.S. will have to determine in the process is who in the Chinese and Russian government is actually making such decisions, what are the organizational centers of such activity, how do they relate to other countries on a global basis, and what U.S. response is needed if any.

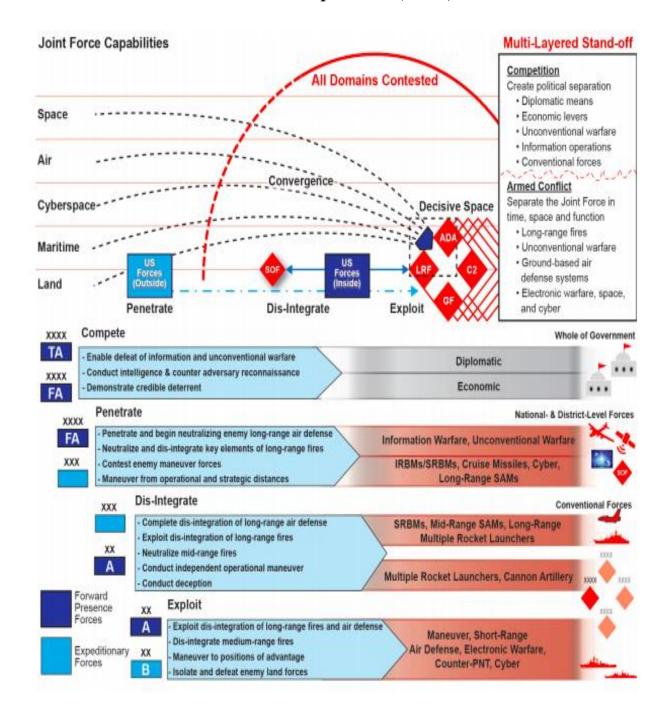
So far, it is unclear that there is any clear structure in the various Departments of the U,S. government -- or in the U,S. intelligence community – that actually address Chinese and Russian strategic competition on this level,

In practice, finding new ways to compete that cut across the boundaries between civil, gray zone, and hybrid warfare is proving to be a critical part of American strategic competition with China and Russia. U.S. strategy must be based on the assumption that there are no fixed rules that define "gray zone" operations that clearly separate the use of military force from political and economic action or from competition based on a wide spectrum of different activities on a national, regional, and global basis.

What is clear, however, is that "gray zone operations," "irregular warfare," "hybrid warfare," and multi-domain warfare" all place a new need for U.S. strategy to respond to the full range of options – from the grand strategic to the tactical level – as the United States competes with Russia and China.

There are clear historical precedents for doing so. They include most of the portions of human history when major powers of empires were not committed to something approaching total war. Human history – alongside such forms of competition – is a key focus of Clausewitz and especially Sun Tzu. It is also clear that both Russia and China now actively compete with the U.S. on this basis, and any definition of this competition that excludes their full range of activities cannot be an effective basis for shaping U.S. strategy.

Chart One: Multi-Domain Operations (MDO) Solutions



Source: U.S. Army Training and Doctrine Command, "Multi-Domain Battle: Evolution of Combined Arms for the 21st Century 2025-2040," December 6, 2018, https://www.tradoc.army.mil/Portals/14/Documents/MDO/TP525-3-130Nov2018.pdf

Chinese Strategy for Civil, Gray Zone, and Hybrid Competition

This need to look beyond the boundaries of any given type of competition is illustrated by the fact that when one examines the full range of actual Chinese and Russian competition with the United States, it becomes clear that there is no practical way to separate civil, gray zone, and hybrid operations. It becomes all too clear that both China and Russia supplement their military activities by using opportunistic and pragmatic versions of all three streams of efforts to help meet their strategic objectives and expand their influence as a great power.

A recent chronology of Chinese operations shows that China is conducting a number of broad campaigns that use all of these methods of competition interchangeably,

- The Belt and Road Initiative (BRI) campaign is China's large-scale project to connect Asia, Africa, and Europe through both economic networks and physical infrastructure. China has partnered with the following countries for its Belt and Road Initiative: Russia, Pakistan, Bangladesh, Sri Lanka, Afghanistan, Nepal, Maldives, Bhutan, India, Mongolia, Indonesia, Thailand, Malaysia, Vietnam, Singapore, Philippines, Myanmar, Cambodia, Laos, Brunei, East Timor, Kazakhstan, Uzbekistan, Turkmenistan, Kyrgyzstan, Tajikistan, Saudi Arabia, UAE, Oman, Iran, Turkey, Israel, Egypt, Kuwait, Iraq, Qatar, Jordan, Lebanon, Bahrain, Yemen, Syria, Palestine, Poland, Romania, Czech Republic, Slovakia, Bulgaria, Hungary, Latvia, Lithuania, Slovenia, Estonia, Croatia, Albania, Serbia, Macedonia, Montenegro, Bosnia and Herzegovina, Ukraine, Azerbaijan, Armenia, Belarus, Georgia, and Moldova.
- *The Trade War* campaign is the use of economic gray zone operations against the United States, which has devolved into a tit-for-tat exchange on traded goods between China and United States.
- The Espionage campaign has historical pretense; however, China is now targeting the development of technological innovation from the United States, specifically, the Chinese tech giant, Huawei, is in direct competition with the United States to develop a 5G network.
- The Disinformation campaign takes place in the United States, the European Union, Australia, and even South America to target any condemnation on China's role in the spread of Covid-19. The campaign is a larger sustained effort to manipulate information on social media platforms.
- The Maritime campaign is China's geopolitical claim to artificial islands and maritime zones in the South China Sea. China conducts mostly negative gray zone operations, including aggressive military demonstrations of force and illegal construction of reefs.
- The Russian-Relations campaign is China's attempt to align itself with Russia to compete with the United States and the West.
- The Separatist campaign is China's response to separatist movements in Xinjiang, Hong Kong, Taiwan, and Tibet. These gray zone operations use economic deterrence, military shows of force, and political demonstrations of disapproval.
- *The Africa campaign* enables China to exploit an expanding market in the African continent including access to natural resources and a port in Djibouti. Many of these countries are already part of the Belt and Road Initiative (BRI) however not all of these projects are part of the BRI campaign.
- *The Arctic campaign*, which China sometimes refers to as the "Ice Silk Road," is the cooperation and development of science and trade with Arctic countries, specifically Russia.

Russian Strategy for Gray Zone Competition

The chronology of Russian operations identifies a similar mix of campaigns that again combines civil and military tactics and operations while tailoring the weight of efforts between any given use of civil, gray zone, and hybrid activities to suit the objective.

• *The Active Measures campaign* is a broad influence campaign specifically against the United States. These gray zone operations range from espionage to cyber-attacks to election meddling.

- *The Nuclear Campaign* is Russia's attempt to maintain a strategic advantage against the United States with its nuclear arsenal.
- The Broader West/EU campaign is similar to the Active Measures campaign, but it targets mainland Europe, and more specifically NATO. Gray zone operations also include espionage, cyber-attacks and meddling, but they also heavily use trade coercion and military demonstrations near NATO sites.
- The U.S.-Russian Bering Strait Air and Maritime Campaign is a passive military campaign which engages U.S. forces by challenging the Alaskan Air Defense Identification Zone and the Bering Strait maritime border.
- The Southeastern Europe/Western Balkans campaign is a more targeted campaign towards the geographical and cultural region that can be coerced to sharing favorable relations with Russia. Many of these countries either already have membership to the European Union and NATO or they have attempted to join, but these countries also have the opportunity to be influenced more heavily by Russia.
- The Western Border campaign includes the Baltic states, Ukraine and Georgia. This campaign is more specific than the Near Abroad campaign because although these countries are also post-Soviet states, Russia uses more aggressive and negative gray zone operations, specifically the threat of territorial occupation.
- *The Near Abroad campaign* uses gray zone operations on states of the former Soviet Union (FSU) including Kazakhstan, Kyrgyzstan, Turkmenistan, Tajikistan, Uzbekistan, Armenia, Azerbaijan, Belarus, and Moldova. Many of these operations involve positive trade unions and diplomatic relations.
- *The Syrian campaign* is Russia's military efforts in the Syrian Civil War, which also involves Russia's relations with Turkey.
- The Middle East campaign is Russia's attempt to expand its influence in the Middle East with the Gulf States, Israel and the Levant. There has been limited progress in this campaign, but it is still notable to track with Russia's presence in Syria.
- The Sino-relations campaign is the Russia's attempt to develop a stronger relationship with China.
- *The Africa campaign* has recently received high levels of attention by the Kremlin to expand its influence on the African continent. This campaign includes debt forgiveness, Russian access to natural resource, military training, and a practice ground for Russian private military companies (PMCs).
- The Latin America campaign is Russia's expanding influence in the backyard of the United States. Although Russia has very novel relationship with most countries in Central America and South America, it has already developed notable relations with Venezuela, Cuba, and Nicaragua.
- The Southeast Asia/India campaign is another upcoming campaign that expands Russia's relationship in the region. However, due to China's strong presence, Russia has only formed initial relationship although they do include some arms sales.
- *The Arctic campaign* focuses on Russian gray zone operations to stake a claim to the natural resources and strategic military position in the Arctic.

Calculating the Balance of Power in Broader Terms

The sections of this analysis that compare national security spending and then compare economic power and civil competition show that China currently has a significant edge over Russia in executing such efforts, and it has far more civil resources in competing with the United States. Over the last decade, China has increasingly shown that it can make major strategic gains by competing at different levels of "warfare" and by using unconventional means.

Simply creating modern Chinese military forces in ways that match the growth of its economy has made China the second ranking power in the world. Taking actions like fortifying islands in the Pacific, regardless of their vulnerability, has given it a major new strategic profile. So has debating

maritime and air control zones with Japan, as well as actions like building a token carrier force – and taking that carrier through the Taiwan Straits – which have produced the same effect.

While China's global economic expansion has triggered growing concerns outside the United States, its "Belt and Road Initiative" (BRI) approach to geo-economics has almost certainly done more to enhance China's status as a great power than its military build-up. Just as important as the modernization of its military forces – and its expansion to the "second island chain" in the Pacific – its status in trade, investment, and economic links to other states and its ability to create an expanding zone of economic influence – that extends through Asia, it border areas with Russia, and the Strait of Malacca to the Arab-Persian gulf – have given more power and influence to China with greater benefits than any potential use of force that could lead to a serious conflict would be able to accomplish.¹⁰

Russia has not been able to challenge the U.S. at an economic level, but it has made its own gains in Eastern Europe, Ukraine, and Syria by making very limited use of its forces and supporting other states and non-state actors. Russia has combined political, economic, and demonstrative military efforts to put pressure on the NATO states closest to its borders. More recently, there are reports that U.S. intelligence sources have assessed that Russia offered bounties to the Taliban to kill U.S. soldiers stationed in Afghanistan – although these have not been confirmed by the Secretary of Defense or senior military commanders.¹¹

Russia has used its energy exports, trade, and economic weapons as well. Russia is also attempting to diversify its economic partnerships in Africa – with the Central African Republic, Sudan, and others – by making contracts concerning natural resource deals and the use of private military companies (PMCs). It has done an increasingly expert job of exploiting the fault lines between the U.S. and its strategic partners with arms sales and advisory efforts – and more specifically by taking advantage of the political tensions in the Middle East. While it unclear that Russia focuses on the teaching of Sun Tzu, they clearly recognize that there are many areas of competition where they do not need to win, but they merely have to deny any form of "victory" to the U.S. or other national targets.

There is no way to predict how the Coronavirus and the overall process of civil competition between the great powers will affect these patterns of competition, or just how serious and enduring it will become. It is not yet possible to predict its relative impact on the United States, China, and Russia – or on their economic strength, their military spending, and national security goals and operations. It is all too possible, however, to predict that it will create a massive new set of economic and political vulnerabilities in other states, and that China and Russia are already deeply engaged in a form of competition, which they use to exploit the new opportunities that they helped to create.

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¹ Frank G. Hoffman, "Hybrid vs. compound war. The Janus choice: Defining today's multifaceted conflict," *Armed Forces Journal*, October 1, 2009, http://armedforcesjournal.com/hybrid-vs-compound-war/.

² Frank G. Hoffman, "Examining Complex Forms of Conflict: Gray Zone and Hybrid Challenges," *National Defense University*, (PRISM Volume 7 no. 4), November 8, 2018, https://cco.ndu.edu/News/Article/1680696/examining-complex-forms-of-conflict-gray-zone-and-hybrid-challenges/

³ General Valery Gerasimov, "The Value of Science Is in the Foresight: New Challenges Demand Rethinking the Forms and Methods of Carrying out Combat Operations," Voyenno-Promysh-lennyy Kurier online, 26 February 2013, http://vpk-news.ru/articles/14632

⁴ Jacob W. Kipp, "Russian Sixth Generation Warfare and Recent Developments," *Jamestown Foundation*, January 25, 2012, https://jamestown.org/program/russian-sixth-generation-warfare-and-recent-developments/.

⁵ Qiao Liang and Wang Xiangsui, *Unrestricted Warfare*, (Beijing: PLA Literature and Arts Publishing House, February 1999), https://www.c4i.org/unrestricted.pdf

⁶ Frank G. Hoffman, "Examining Complex Forms of Conflict: Gray Zone and Hybrid Challenges," *National Defense University*, (PRISM Volume 7 no. 4), November 8, 2018, https://cco.ndu.edu/News/Article/1680696/examining-complex-forms-of-conflict-gray-zone-and-hybrid-challenges/

⁷ U.S. Army Training and Doctrine Command, "Multi-Domain Battle: Evolution of Combined Arms for the 21st Century 2025-2040," December 6, 2018, https://www.tradoc.army.mil/Portals/14/Documents/MDO/TP525-3-130Nov2018.pdf

⁸ U.S. Army Training and Doctrine Command, "The U.S. Army in Multi-Domain Operations 2028," TRADOC Pamphlet 525-3-1, December 2017, https://www.tradoc.army.mil/Portals/14/Documents/MDB Evolutionfor21st%20(1).pdf

⁹ See "Multi-Domain Battle: Evolution of Combined Arms for the 21st Century, 2025-2040, U.S. Army Training and Doctrine Command (TRADOC), December 2017, tradoc.army.mil.

¹⁰ These issues are discussed in more depth from a Chinese perspective in a number of the chapters in U.S-China Economic and Security Review Commission, *2019 Report to Congress*, November 2019, pp. 33-49, 169-205

¹¹ Ellen Nakashima, Karen DeYoung, Missy Ryan, and John Hudson, "Russian bounties to Taliban-linked militants resulted in deaths of U.S. Troops, according to intelligence assessments," *Washington Post*, June 28, 2020, <a href="https://www.washingtonpost.com/national-security/russian-bounties-to-taliban-linked-militants-resulted-in-deaths-of-us-troops-according-to-intelligence-assessments/2020/06/28/74ffaec2-b96a-11ea-80b9-40ece9a701dc_story.html.