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SEIZING THE ADVANTAGE: A Vision for the Next US National Defense Strategy

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With a Foreword by Secretary Chuck Hagel

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SEIZING THE ADVANTAGE: A Vision for the Next US National Defense Strategy



Scowcroft Center for Strategy and Security

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This strategy paper was produced by the lead co-authors in accordance with the Atlantic Council's policy on intellectual independence.

The strategy paper was supported by the collaborators listed, with thanks to those who shared their insights and provided peer review.

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force posture, hybrid warfare, Chinese and Russian capabilities, and transatlantic security. During her time at the Council, Starling has produced and contributed to reports on space security, hybrid warfare, military mobility, US China policy, NATO, and the US-UK defense relationship. Starling's analysis has been featured in a range of publications and she has provided commentary for National Public Radio, the BBC, and ABC News, among others. Within the Transatlantic Security team, she played a leading role in managing NATO's official public diplomacy efforts ("NATO Engages") around the Alliance's 2019 London Leaders' Meeting and other summits. Starling was 2020 Security and Defense fellow at Young Professionals in Foreign Policy (YPFP). Prior to joining the Atlantic Council, Starling worked in the UK Parliament. Originally from the United Kingdom, she also worked for the Britain Stronger in Europe (BREMAIN) campaign. Starling is a Master of Security Studies candidate at Georgetown University. She graduated with honors with a Bachelor of Science in International Relations and History from the London School of Economics and Political Science.



Lieutenant Colonel Tyson K. Wetzel is the 2021-22 senior US Air Force fellow at the Atlantic Council's Scowcroft Center for Strategy and Security. Wetzel is an intelligence officer and military strategist, and he has deployed multiple times in support of numerous combat operations. Prior to his fellowship, he served as the commander of the 32d Intelligence Squadron at Fort George G. Meade,

Maryland, where he led over four hundred airmen, guardians, and civilians from twenty-six different career fields, conducting 24/7 global reach-back and expeditionary intelligence-, surveillance-, and reconnaissance-collection operations. Wetzel previously served as the special adviser to the director

for intelligence of the Joint Chiefs of Staff and as the director of operations for the 8th Intelligence Squadron at Joint Base Pearl Harbor-Hickam, where he was responsible for the day-to-day operations of the \$500-million Distributed Ground Station 5. He is a graduate of and former instructor at the United States Air Force Weapons School. Wetzel graduated from the University of Redlands in 2000 with a bachelor's in international relations and entered the Air Force through Officer Training School. He earned a master of military science from the Marine Corps Command and Staff College at Marine Corps University in Quantico, Virginia.



Christian S. Trotti is an assistant director of Forward Defense at the Atlantic Council's Scowcroft Center for Strategy and Security. Having served as one of the Atlantic Council's lead action officers in building the new Forward Defense practice area, Trotti is responsible for executing multiple facets of program administration and

project management, including strategy, business development, and event and logistical planning. He has also authored and contributed to analyses on defense strategy, military technology, and nuclear deterrence, while assisting in the design and implementation of the Scowcroft Center's wargames. Trotti is a *summa cum laude* and *Phi Beta Kappa* graduate of Georgetown University's School of Foreign Service, where he received his Bachelor of Science in Foreign Service with a major in International Politics/Security and a certificate in Diplomatic Studies. For his academic work, he was awarded the Joseph S. Lepgold Medal for outstanding achievement in the field of international security.



Secretary Chuck Hagel is a member of the Atlantic Council's International Advisory Board (IAB). He served as the 24th Secretary of Defense from February 2013 to February 2015. During his tenure, he directed significant steps to modernize the United States' partnerships and alliances, advance the rebalance in Asia-Pacific, bol-

ster support for European allies, and enhance defense cooperation in the Middle East while overseeing the end of the United States' combat mission in Afghanistan. In addition, he led major initiatives for service members and their families, including increasing resources for suicide prevention, combating sexual assault, and accounting for missing personnel. Further, Secretary Hagel improved partnerships with the Department of Veterans Affairs, to include health record interoperability, service treatment record transferability, and continuity of mental health services and support. Secretary Hagel launched the Defense Innovation Initiative to better prepare the Pentagon for future threats, and enacted comprehensive reforms to the Nuclear Enterprise and Military Health system. Hagel served two terms in the United States Senate (1997-2009) representing the state of Nebraska. Hagel was a senior member of the Senate Foreign Relations;

Banking, Housing and Urban Affairs; and Intelligence Committees. He Chaired the Foreign Relations International Economic Policy, Export and Trade Promotion Subcommittee; and the Banking Committee's International Trade and Finance, and Securities Subcommittees. Hagel also served as the Chairman of the Congressional-Executive Commission on China and the Senate Climate Change Observer Group. Previously, Secretary Hagel was a Distinguished Professor at Georgetown University, Co-Chairman of the President's Intelligence Advisory Board, Chairman of the Atlantic Council, Chairman of the United States of America Vietnam War Commemoration Advisory Committee, and Co-Chairman of the Vietnam Veterans Memorial Fund Corporate Council. He served as a member of the Secretary of Defense's Policy Board, Secretary of Energy's Blue Ribbon Commission on the Future of Nuclear Power, the Public Broadcasting Service (PBS) Board of Directors and Systemic Risk Council; as a Senior Advisor to Gallup; and on the Advisory Boards of Corsair Capital, Deutsche Bank America, M.I.C. Industries, Bread for the World, Bonnie J. Addario Lung Cancer Foundation, Center for the Study of the Presidency, Dwight D. Eisenhower Memorial Commission, George C. Marshall Foundation, Georgetown's Institute for the Study of Diplomacy, Global Strategy Forum, Global Zero, Hamilton Project, Initiative for Global Development, Lung Cancer Alliance, International Center for the Study Of Radicalization and Political Violence, National Bureau of Asian Research's Next Generation Leadership Board, Ploughshares Fund, US Global Leadership Coalition, US Institute of Peace Middle East Senior Working Group, US Middle East Project, America Abroad Media, American Security Project, and The Washington Center. Prior to his election to the US Senate, Hagel was president of McCarthy & Company, an investment banking firm in Omaha, Nebraska. In the mid-1980's, Hagel co-founded VANGUARD Cellular Systems, Inc., a publicly traded corporation. He was President and CEO of the World USO, Private Sector Council (PSC), and Chief Operating Officer of the 1990 Economic Summit of Industrialized Nations (G-7 Summit). Hagel also served as Deputy Administrator of the Veterans Administration under President Ronald Reagan and Deputy Commissioner General of the 1982 World's Fair. He is the author of the book, America: Our Next Chapter and was the subject of a 2006 book by Charlyne Berens entitled, Chuck Hagel: Moving Forward. "[This biography was drawn from the US Department of Defense website: https://www.defense.gov/ About/Biographies/Biography/Article/602798/chuck-hagel/]."

Contributors to Recent Versions of the Report

The following 2021-22 Atlantic Council Military Fellows have contributed to the research and drafting of recent versions of this report.



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initial Marine action in support of Operation Enduring Freedom. Following that, Barranco reported to Marine Aviation Weapons and Tactics Squadron One in Yuma, Arizona for duty as a Super Cobra instructor pilot. During his tenure there, he deployed to Iraq in 2003 for Operation Iraqi Freedom as an augment member of Marine Light Attack Helicopter Squadron 269. Later, he was assigned to Marine Light Attack Helicopter Squadron 369 and completed two more tours to Operation Iraqi Freedom from 2005 to 2007. He reported to Headquarters Marine Corps for Aviation in February 2008, where he served as H-1 Transition Task Force lead from February 2008 until April 2010. Barranco assumed command of The Watchdogs of the Marine Unmanned Aerial Vehicle Squadron 1 in June 2010. Barranco then served as the Homeland Defense Division Joint Operations/Theater Security branch chief from June 2013 to May 2015. From May 2015 until February 2016, he was the executive officer to the commander of US Southern Command. Barranco was then reassigned to Headquarters Marine Corps Aviation, serving as the Aviation Expeditionary Enablers branch head from February 2016 until August 2016, and as the Aviation Programs and Weapons Requirements branch head from August 2016 until July 2017. He commanded the Expeditionary Warfare Training Group, Atlantic from July 2017 to July 2019. Barranco subsequently served as Aviation Plans, Policies, Programs and Budget branch head at the Headquarters Marine Corps for Aviation from July 2019 until July 2021. Barranco was commissioned through the United States Naval Academy, graduating with a bachelor of science in history. Barranco is a graduate of the US Marine Corps Weapons and Tactics Instructor Course and a distinguished graduate of the Eisenhower School for National Security and Resource Strategy at National Defense University. His personal decorations include the Defense Superior Service Medal, two Legions of Merit, a Bronze Star, the Defense Meritorious Service Medal, two Meritorious Service Medals, two individual Air Medals, 20 Strike/Flight Air Medals, three Navy/Marine Corps Commendation Medals, and two Navy/ Marine Corps Achievement Medals.



Colonel Benjamin G. Johnson is the 2021-22 senior US Army fellow at the Atlantic Council's Scowcroft Center for Strategy and Security. Prior to his current role, Johnson was a student at the Naval War College in Newport, Rhode Island, and before that, he served as the logistics branch proponent chief at Fort Lee, Virginia, assist-

ing Fort Lee in revising operations to continue trainee flow at the beginning of the COVID-19 pandemic. From 2017 to 2019, Johnson commanded Sierra Army Depot in Herlong, California, leading approximately 1,400 Department of the Army civilians, soldiers, and contracted employees. He served on the First Corps Staff at Joint Base Lewis-McChord (JBLM) in Washington from 2015 to 2017, during which he deployed to Kandahar, Afghanistan as the deputy chief of staff for support for the Train, Advise, and Assist Command-South, From 2013 to 2015, Johnson was the executive officer to the logistics branch of US Army Forces Command at Fort Bragg, North Carolina. From 2011 to 2013, he served in various positions with Army Special Operations Command at Fort Bragg, including service on a deployment to Kabul, Afghanistan from 2011 to 2012. Johnson served as the support operations officer for a Stryker Brigade at JBLM from 2007 to 2009, including during a deployment to Kandahar, Afghanistan in 2009. From 2005 to 2006, he served as the logistics branch officer in a Military Intelligence Brigade at JBLM. Johnson commanded a maintenance company in the Second Infantry Division at Camp Casey, South Korea from 2003 to 2005. Prior to that, Johnson served in various logistics positions with the First Armored Division in Germany, including a deployment to Kosovo in 2000. Johnson is a native of East Wenatchee, Washington and was commissioned through the Reserve Officer Training Corps program at Gonzaga University. His education includes a bachelor's of science in mechanical engineering, a master of business administration from Webster University, and a master's degree in national security and strategic studies from the Naval War College. In 2010, Johnson attended the Army Command and General Staff College at Fort Leavenworth, Kansas. Johnson's awards and decorations include two Bronze Stars, six Meritorious Service Medals, a Joint Service Commendation Medal, two Army Commendation Medals, a Joint Service Achievement Medal, an Army Achievement Medal, the Parachutist Badge, and the Air Assault Badge.



Commander Daniel P. Vardiman is the 2021-22 senior US Navy fellow at the Atlantic Council's Scowcroft Center for Strategy and Security. Afloat, for his commander milestone tour, he was the intelligence lead for Expeditionary Strike Group Two from August 2019 through July 2021. In this role, he also served as the acting information war-

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Contributors to Earlier Versions of the Report

The following 2020-21 Atlantic Council Military Fellows contributed to this report during their fellowships with the Council, which ended in the late spring and early summer of 2021. Therefore, they may not agree with every aspect of the final paper, and this paper does not necessarily represent the views of the Department of Defense or any other US government agency.



Lieutenant Colonel Christopher P. Mulder was the 2020-21 senior US Air Force fellow at the Atlantic Council's Scowcroft Center for Strategy and Security. Prior to his fellowship, Lt Col Mulder served as the 80th Operations Group deputy commander at Sheppard AFB, TX, responsible for assisting the Operations Group commander

in leading operations for the Euro-NATO Joint Jet Pilot Training Program. In addition, Lt Col Mulder instructed and trained new pilots from fourteen nations, including Germany, Belgium, and the Netherlands. Lt Col Mulder previously served as the 80th Operations Support squadron commander, leading a diverse squadron of 530 personnel that maintained the airfield and navigation equipment, controlled aircraft, produced weather reports, taught aerospace physiology concepts, and also included all student pilots. Lt Col Mulder graduated from the US Air Force Academy in 2001. He instructed in the T-6 as a first assignment instructor pilot and served as a mission commander, evaluator, and instructor in the F-16. He has held various squadron positions at Moody AFB, Osan AB, Shaw AFB, and Spangdahlem AB. During his time as the current operations flight commander, 20th Operational Support Squadron, he was responsible for executing a multi-million dollar flying hour program, managing the Ready Aircrew and SERE programs, and maintaining Shaw AFB's F-16 simulator complex. As part of the 480th Fighter Squadron, Lt Col Mulder led missions in both Operation Odyssey Dawn and Operation New Dawn in support of national security objectives. He also served as Aide-de-Camp to the United States Air Forces in Europe-Africa commander. He planned and executed more than two hundred strategic events, traveling to twenty-nine countries in Europe, Africa, and the Middle East, entailing high-level meetings, academic and think tank round tables, and industry engagements. Prior to moving to Sheppard AFB, TX, he served on the Joint Staff in various roles. Lt Col Mulder is a command pilot with more than 2,600 hours in the F-16 and T-6, including 270 combat hours.



Commander Ronald C. Fairbanks was the 2020-21 senior US Navy fellow at the Atlantic Council's Scowcroft Center. Afloat, Commander Fairbanks completed his division officer tours aboard USS Port Royal (CG73) as the communications officer and gunnery officer and then aboard USS Dewey (DDG105) as the fire control

officer. During his first two sea tours, he deployed to the Fifth Fleet area of operations in support of Operation Iraqi Freedom. Commander Fairbanks' department head assignments were as the weapons officer and combat systems officer in USS William P Lawrence (DDG110) from March 2014 through March 2017. During his tours, he deployed to the Seventh Fleet area of operations as part of the John C Stennis carrier strike group, conducting multiple freedom of navigation operations, pacific presence operations, and the Oceania maritime support initiative (OMSI) mission. His shore assignments include expeditionary fires officer in Expeditionary Warfare Training Group Atlantic (EWTGLANT) from January 2011 through January 2013, the training and readiness officer (N7) in Commander Navy Expeditionary Combat Command Pacific (COMNECCPAC) from March 2017 through May 2018, and as the executive assistant to the deputy commander, US Pacific Fleet from May 2018 through July 2020. A native of San Diego, California, Commander Fairbanks attended the University of Southern California on a Naval ROTC scholarship, graduating in 2006 with a Bachelor of Arts in International Relations. His personal awards include the Meritorious Service Medal, Navy and Marine Corps Commendation Medal (three awards), and Navy and Marine Corps Achievement Medal (three awards), as well as multiple unit and service awards.

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To produce this strategy paper, the authors conducted a number of interviews and consultations. They list alphabetically below, with gratitude, some of the individuals consulted and whose insights informed this report. The analysis and recommendations presented in this strategy paper are those of the authors alone and do not necessarily represent the views of the individuals consulted. Moreover, the named individuals participated in a personal, not institutional, capacity.

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Finally, the authors would like to thank the following individuals for their peer review of various drafts of this report, listed below in alphabetical order. The analysis and recommendations presented in this strategy paper are those of the authors alone and do not necessarily represent the views of the individuals consulted. Moreover, the named individuals participated in a personal, not institutional, capacity.

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- Mr. Christopher Skaluba, Director, Transatlantic Security Initiative, Scowcroft Center for Strategy and Security, Atlantic Council

FOREWORD

(DoD) as the twenty-fourth secretary of defense. Public service is vital to our democracy; advancing from service as a US Army sergeant during the Vietnam War to leading the DoD was the highest honor of my life. I hope that my service in the Army, as a US senator, and as secretary of defense strengthened both individuals and our democratic organizations, to include inspiring the next generation to serve and advance US interests into the future.

Since I left public service in 2015, the security environment has been dynamic, issues have changed, threats evolved, and new concerns risen in prominence—domestically we find ourselves more politically polarized than at any time in recent memory; threats in the cyber regime are silent, diffuse, unpredictable, and increasing; resource constraints are an increasing limitation across government; and internationally, we face disruption from emerging technology, expansion of space into a realm for commerce and conflict, rearrangement of relationships with allies and partners, and increased tension with adversaries such as China and Russia. And of course, the global health pandemic that has permeated all decision making and discourse for greater than twelve months. Despite these challenges, the United States is in a unique position, based on our democratic ideals and moral values, to build upon previous national security and defense foundations to forge a safe and secure future as the world emerges from the aftermath of the coronavirus pandemic.

The 2018 National Defense Strategy (NDS) correctly reoriented our focus on great-power competition. However, security policy and planning are an iterative process; yesterday's products are perishable, becoming stale amidst shifting world dynamics. China, specifically, is aggressively moving to gain global influence through misinformation, disinformation, infrastructure investments, coercion, and other nefarious activity. Though the DoD must still acknowledge the threat posed by Russia and others, it is correct to prioritize its efforts to compete with and deter Chinese aggression.

Consequently, the nation must tackle a new reality, developing the next strategy to secure the United States and the world. This paper, the culmination of the Atlantic Council's Forward Defense project—Seizing the Advantage: A Vision for the Next US National Defense Strategy—is a thoughtful, realistic, and relevant answer to some of our most difficult challenges.

The ideas contained in this report lay out important considerations that highlight how the United States can lead in the current security environment. To accomplish this, the DoD will need to adjust, increasing the emphasis placed upon integrating allies and the other elements of national power into our defense strategy. A more closely coordinated approach between

nations and across the whole of governments is needed to deter, defend, and shape the strategic environment, if the US security and defense apparatus is to be nimble enough to deal with the "gray-zone" warfare that resides just below the threshold of armed conflict.

Likewise, maintaining the US technological edge is of primary concern. The current dependency on expensive and exquisite, manpower-intensive systems must shift toward a model of more affordable, attritable, and autonomous systems. Acquisition and procurement processes must both change to more effectively capture innovation and accelerate development of new technologies from prototype to deployment. This will require changes across both the DoD and industry.

Similarly, future investments in personnel management and education should increase to provide for a force as capable intellectually as it is advanced technologically. New force staffing programs must be creative, supporting the recruitment and retention of the best and most skilled. Old paradigms for training, promotion, and assignments must be reoriented to ensure that the military presents a viable option to careers in other fields and that the services are adequately staffed. It will require challenging old ways of doing business, incorporating novel capabilities, and developing new relationships. The DoD has always risen to the challenge. It may not always be a smooth ride, but in the end, the airmen, guardians, marines, sailors, soldiers, and government civilians always meet the challenge.

Sincerely,

Chuck Hagel

24th Secretary of Defense

EXECUTIVE SUMMARY

WHEN THE GAME CHANGES, BUILD A NEW BOARD.

The 2018 National Defense Strategy (NDS) recognized the rapidly changing global security environment, including the rise of strategic competition with China and Russia. It also refocused the Department of Defense (DoD) from what had been its primary mission—counterterrorism and counterinsurgency—to competition with those two nations:

We are facing increased global disorder, characterized by decline in the long-standing rules-based international order—creating a security environment more complex and volatile than any we have experienced in recent memory. Inter-state strategic competition, not terrorism, is now the primary concern in U.S. national security.

As the Biden administration prepares to release its NDS, the modern challenges facing the United States have continued to evolve, and the risks to the United States, its interests, and those of its allies and partners are more pronounced than even four years ago. China has continued to modernize its military at shocking speed, building the world's largest navy, operationally deploying stealth fighters, and planning to increase its nuclear warhead stockpile by as much as four times and to more rapidly integrate a variety of emerging military and dual-use technologies like hypersonic weapons and artificial intelligence.² Russia, despite economic challenges, continues to invest in a new generation of strategic weapons, including new nuclear delivery vehicles.³ China and Russia are also increasing their illicit hybrid activities, flouting accepted international rules and norms. Regional aggressors Iran and North Korea continue to conduct malign activities and support destructive actors and proxies. Violent extremist organizations (VEOs) still pose a major threat to the homeland and US interests abroad. Finally, transnational issues such as climate change and global pandemics will pose increasingly grave threats to the security of the United States and test the readiness of the US military.

Alone, these challenges are daunting; together, they have begun to put at risk US global power and prestige. In a world of accelerating multipolarity and strategic simultaneity, China and Russia are each attempting to remake or disrupt the international order in ways that better suit their respective

Great-Power Games

It has become fashionable to denigrate the United States' grand strategy, or lack thereof, as America playing chess, a defined and linear game, with the goal of attriting the adversary's forces and capturing their king. This analogy postulates China as playing Weiqi (or "Go"), a complex game with many more possible moves and strategies, with the aim of outpositioning and surrounding the adversary, presenting various faits accomplis, and forcing a surrender with limited combat. In this analogy, the deployment of the Chinese hybrid tool set around the world, including the Belt and Road Initiative, political warfare, and the buildup of military and paramilitary forces, could be seen as evidence of China's attempt to move its stones on the global Go board to encircle the United States, thereby marginalizing the "declining" power as China retakes its position as the "Middle Kingdom."

Seizing the Advantage rejects the premise of this geopolitical board game analogy because the real "game" is neither chess nor Go. Chess is too oriented toward military attrition and Go involves an overly simple and symmetrical toolset of equally capable stones—but the greatest flaw of the analogy is that both of these games are defined by clear rules that the players must follow. In the real world, the players can decide whether and when to play by the existing rules on the existing gameboard or develop entirely new ones. Therefore, Seizing the Advantage encourages the US government to take a four-dimensional view of strategic competition with China (and Russia)—one defined by geography, time, different domains, and the competition continuum as its axes.^c The United States needs to redefine the geopolitical "game" in ways that better integrate and maximize its existing advantages, such as its robust web of alliances and partnerships, its strong economic fundamentals, its long history of military and defense-industrial prowess, and the benefits of its democratic model. Only a new game, crafted intentionally and strategically, has the potential to halt its perceived decline and take the offensive against its competitors with the goal of improving its relative security position and revitalizing the international rules-based order.

- ^a Timothy J. Demy, James Giordano, and Gina Granados Palmer, "Chess vs Go Strategic Strength, Gamecraft and China," *National Defense Magazine*, July 8, 2021 https://www.nationaldefensemagazine.org/articles/2021/7/8/chess-vs-go---strategic-strength-gamecraft-and-china; Lieutenant Colonel Christopher P. Mulder, "Let's 'Go' Back to the Basics to Counter China," *DoDReads*, July 26, 2021, https://www.dodreads.com/lets-go-back-to-the-basics-to-counter-china/.
- b Suzanne Ho, "How China is beating the US in geopolitical board game," letters, South China Morning Post, January 31, 2021, https://www.scmp.com/comment/letters/article/3119753/how-china-beating-us-geopolitical-board-game?module=perpetual_scroll&pgtype=article&campaign=3119753. For more than two thousand years, China has seen itself as the Middle Kingdom, the center of the world not just geographically, but culturally, politically, and economically, according to the Council on Foreign Relations (CFR). Council on Foreign Relations, "China's Approach to Global Governance," https://www.cfr.org/china-global-governance/. According to CFR, China is looking to reestablish its position as the Middle Kingdom after more than two centuries of marginalization.

^c For more information on the competition continuum, see Chapter 3 of this report.

national interests, and the United States' ability to deter, prevent, and roll back these transgressions will continue to diminish without immediate action. The imperative is clear: US policy makers need to arrest the relative or perceived decline of American power and present a road map to rebuild the United States' standing in the world, primarily by hewing more closely to core US interests; shoring up alliances; and by maximizing, integrating, and building upon existing, but too often disparate and uncoordinated, US advantages. Indeed, if the geopolitical game is changing, pushed by competitors who manipulate the rules in their favor, it would be a critical failure to not adapt and to continue to allow adversaries to play a different game. Instead, the United States, with allies and partners, must change the game and reshape the environment in their favor.

This complex and dynamic security environment provides the context for Seizing the Advantage: A Vision for the Next US National Defense Strategy. This strategy offers solutions for the DoD to consider as it formulates its next NDS. The next NDS should provide clear and achievable national defense goals and subsidiary objectives in line with core interests, while establishing actionable lines of effort and implementation guidelines to ensure that the DoD supports the greater national security strategy as outlined by US President Joseph R. Biden, Jr.: to "[p]romote a favorable distribution of power to deter and prevent adversaries from directly threatening the United States and our allies, inhibiting access to the global commons, or dominating key regions."⁴

Seizing the Advantage lays out a bold vision to improve the United States' relative security position through the following lines of effort: 1) adapting to the "new competition" by confronting Chinese and Russian hybrid threats and taking the offensive in the gray zone; 2) preparing for the "new battlefield" by remaking the force to better deter and dominate future conflict; 3) leveraging "new and established friends" by building and revitalizing defense relationships globally; and 4) crafting the "new enterprise" by training, equipping, and securing the department for technological superiority.

This strategy presents four proposals, cutting across the strategy's lines of effort and guidelines for implementation, that will enhance the United States' efforts to compete now, strengthen deterrence, integrate allies and partners into a latticed defense structure, and build a force that can dominate future armed conflict should the need arise. The purpose of this strategy is not to play Go better, but rather to build a new game and force China and Russia to play the United States' game.⁵

Seizing the Advantage's Four Proposals

- The DoD needs to compete now and engage in offensive hybrid actions.
 The United States must respond where competition with China and Russia is taking place today, primarily by playing an enhanced role in gray-zone competition.
 Accordingly, the Pentagon must embrace the paradigm of competition as a continuum from cooperation through competition to armed conflict. But embracing the continuum is not enough; the DoD, working with interagency partners where appropriate, must defend more aggressively and take offensive actions in the gray zone, consistent with American values. Seizing the Advantage articulates the concept of a competition continuum and advances recommendations for the DoD to shape the information environment and compete in cyberspace.
- Future warfighting must be joint, combined, and across all domains. Conflict in the future must require better integration of all US military services and will take place on land, at sea, in air, space, and cyberspace, and across the electromagnetic spectrum. It will also be conducted in close coordination with allies and partners, who collectively comprise one of the United States' greatest advantages vis-à-vis its major-power competitors. A new operational concept that embraces this future battlefield is necessary. Seizing the Advantage introduces the "Combined Warfighting Concept" (CWC), an all-domain, joint, and combined warfighting concept that embraces the role, capabilities, and capacity of allies and partners from the start.
- The DoD must build the force to dominate armed conflict of the future. The future battlefield will be data-centric, networked, and fast-paced. Both the United States and its strategic competitors are heavily investing in revolutionary kinetic and non-kinetic weapons, including hypersonic delivery vehicles, autonomous combat systems, directed energy, and cyber tools. While these weapons will make it easier to neutralize or destroy targets, finding those targets will be the more pressing challenge. Therefore wars of the future are likely to be won by the side that can best harness available data across all domains and deny the adversary the ability to do the same. Seizing the Advantage articulates clear investment priorities to build that force—and divestment priorities to afford it.
- The DoD must rebalance its force posture from Central Command-centric to a more globally oriented model. As the United States shifts its overall focus from counterterrorism to strategic competition, its global force posture must shift accordingly. The era of numerous, long rotational deployments to the Central Command Area of Responsibility is over. As an alternative, Seizing the Advantage introduces a balanced, differentiated, "latticed" posture model that would move needed asset types to the Indo-Pacific and Europe, and rely on a more tightly linked defense structure with allies and partners, thereby mitigating risk from the US rebalance.

STRATEGIC CONTEXT



A sailor maintains a lookout watch aboard the *Wasp*-class amphibious assault ship *USS Kearsarge* during the Large Scale Exercise (LSE) 2021.

OR TWO DECADES after 9/11, the United States prioritized counterterrorism, counterinsurgency, and the deterrence of regional aggressors. However, new conditions have profoundly reshaped geopolitics. The 2018 National Defense Strategy (NDS) astutely identified "an increasingly complex global security environment, characterized by overt challenges to the free and open international order and the re-emergence of long-term, strategic competition between nations"especially vis-à-vis China and Russia.⁶ Seizing the Advantage largely concurs with this overall threat assessment, while adding that the United States' competitors are actively changing the geopolitical "game" in ways unfavorable to the United States and its allies and partners, including by using a variety of asymmetric hybrid tools to circumvent traditional US military and defense advantages. Overall, the threats to the United States are becoming more numerous and simultaneous, the lines between them are blurring, and the means with which the United States can counter these threats are diminishing in critical ways, though opportunities remain.

1.1 NEW AND OLD POWERS PLAYING NEW GAMES

Strategic Competition with China and Russia Will Remain a Central Challenge. While the threats posed by China and Russia are not identical—and in critical ways, their strategic ends and means are very different—they are both the most disruptive threats to regional and global security. Confronting them will require a long-term, whole-of-nation effort among the executive branch, legislative branch, defense industrial base, and strong coordination with allies and partners.

"Great-Power" vs. "Strategic" Competition

The Biden administration has changed the terminology of competition with China and Russia from "great-power" to "strategic" competition. To ensure this is more than just semantics, the next NDS must be clear on what the new term means. This strategy uses strategic competition to denote competition with China and Russia, with the focus of that competition on the areas and topics that are strategically important to the United States, its allies, and partners.

China is by far the most concerning long-term strategic threat. Beijing seeks to maintain the security of its regime at home, prevent other powers from intervening in the immediate Indo-Pacific region, and supplant the United States as the world's leading power, thereby reshaping the international order. As US President Joseph R. Biden, Jr., and his administration wrote in their *Interim National Security*

Strategic Guidance, "the only competitor potentially capable of combining its economic, diplomatic, military, and technological power to mount a sustained challenge to a stable and international order," China has increasingly aligned its robust national means with its ambitious ends. China has modernized and oriented its anti-access/area denial (A2/AD) capabilities to specifically target US and allied assets critical to intervention in the region, while increasingly projecting power abroad through long-range platforms, overseas installations, an increasingly formidable arsenal of nuclear and other strategic forces, and a variety of paramilitary and other hybrid operations in the Indo-Pacific and beyond.

The Russian threat is not nearly as comprehensive, but it also transcends multiple elements of national power. Unlike in Beijing, leaders in Moscow recognize they are not powerful enough to entirely displace the international order, so they instead seek to disrupt it at every viable opportunity, primarily because they perceive the democratic values espoused by that order as an existential threat. Russia expertly manages and employs its limited means, including an "escalate-to-deescalate" nuclear doctrine (also referred to as an "escalate-to-win" doctrine) and a growing arsenal of nonstrategic and exotic nuclear weapons. Russia also utilizes a variety of hybrid tools such as political warfare, election interference, energy manipulation, mercenaries, and special operations, all of which are designed to divide the NATO alliance and sow fears of escalation among transatlantic states.

Regional Aggressors Continue to Threaten Global Security. The United States must continue to contain regional aggressors Iran and North Korea. Iran relies on the threat of nuclear breakout, conventional ballistic missiles, autonomous systems, and state-sponsored terrorism, while North Korea advances its nuclear, chemical, and biological arsenal, ballistic missile capability, and cyber warfare program. Military conflicts with either of these powers would be costly, weakening the United States relative to its strategic competitors—or, even worse, could expand to include these strategic competitors in a broader theater or world war.

Violent Extremists Acting both Domestically and Abroad. While strategic competition has supplanted terrorism and insurgency as the primary US national security priority, terrorism remains a persistent challenge. Some fear that the US withdrawal from Afghanistan has curtailed the counterterrorism toolkit, potentially providing safe havens for terror groups from which to plan and execute future large-scale attacks. Additionally, national security will increasingly be challenged by domestic violent extremism.

1.2 NEW WEAPONS AND NEW THREATS

Climate Change Presents an Unconventional Challenge. In the long term, climate change will limit the ability of the US military to operate globally. Extreme temperatures and conditions will degrade access to key military facilities, especially ports and installations vulnerable to rising sea levels; generate global instability; and detract from the national defense resource base while dramatically increasing the demand for defense support to US civilian authorities, particularly as it relates to climate migration. Additionally, geopolitical tensions will rise as states disagree over mitigation measures and compete for new resources, especially in theaters such as the Arctic. Addressing and mitigating climate change will require a significant amount of national resources and attention from leadership, detracting from those given to traditional national defense priorities.

Hybrid, Conventional, and Nuclear Threats Are Growing, and the Lines Between Them Are Blurring. Due to both the technological development opportunities enabled by the Fourth Industrial Revolution and the worsening geopolitical environment, threats at each level of the competition continuum are growing, while strategic competitors, regional aggressors, and nonstate actors are learning to integrate these capabilities to wage war asymmetrically. Opponents are taking the initiative to define the future of warfare in order to ensure that very future is not one that is conducive to the US way of war. As a result, the nuclear level is increasingly defined by growing nuclear arsenals abroad and an expanding range of nonnuclear strategic forces that may revolutionize existing deterrence paradigms (such as hypersonic weapons, missile defenses, space-based systems, and others).¹³ The conventional level is witnessing the return of the importance of mass (e.g., missiles, autonomous weapons, cyberattacks), speed (e.g., hypersonic weapons and artificial intelligence-enabled decision making),

and surprise (e.g., threats to command, control, communications, computers, intelligence, surveillance, and reconnaissance [C4ISR] platforms like satellites) in ways that undermine the US way of war. The gray-zone level below the threshold of armed conflict is growing in breadth and depth of tools available, from mis- and disinformation, cyberattacks, economic subversion, and coercive diplomacy, to election interference. Additionally, adversaries are innovating hybrid conflicts to combine and integrate actions across these blurred levels, complicating US responses.

1.3 NEW CHALLENGES AT HOME

The Homeland Is Increasingly Under Threat. As the 2018 NDS observed, the "homeland is no longer a sanctuary" due to a variety of threats, including "terrorists seeking to attack our citizens; malicious cyber activity against personal, commercial, or government infrastructure; or political and information subversion." And while the United States maintains nuclear deterrence vis-à-vis its adversaries, the growth in Chinese and Russian strategic nuclear arsenals presents the opportunity for further destruction of the homeland in an escalating conflict, and thereby nuclear coercion in peacetime. Retrenchment to "Fortress America" would be impossible, as the threats to the homeland are too multifaceted—they need to be met abroad and at home, requiring continued, but more effective, US engagement with the world.

The Department of Defense Faces Critical Resource Constraints. The United States will continue to experience intense pressure on its defense budget for the foreseeable future. Barring any major addition of new entitlements, substantial increase in revenue, or large increase in deficit spending, discretionary defense outlays as a percentage of GDP are projected to fall from 3.2 percent in 2019 to 2.8 percent in 2029. Without increased investment, the DoD will likely see declines in capability and readiness over time. ¹⁸

1.4 STRATEGIC SIMULTANEITY

Strategic Simultaneity Among Multiple Challenges Must Be Managed.

Confronting any one of the challenges above is difficult enough; confronting all of them simultaneously is a herculean effort. In a world of intensifying multipolarity among more advanced state and non-state actors, the United States may still be the strongest power by many metrics, but it cannot

overwhelm every threat simultaneously. Strategic simultaneity is made especially difficult by the threat of alignment among challengers, such as through more robust Chinese-Russian military and technological cooperation.19 However, strategic simultaneity is surmountable if the United States and its allies and partners collaborate to achieve relative gains in competition, rather than strive for total victory over each competitor at the same time. This requires realistic assessments of critical national

Strategic Simultaneity

One of the most complicated and unprecedented aspects of strategic competition with China and Russia is the problem of "strategic simultaneity." The United States must compete with both China and Russia—two nations with different strategies, objectives, and tactics—and so the United States must tailor its competitive approach to each. Additionally, the United States must prepare for a simultaneous armed conflict. This is not to say that China and Russia will actively work together to fight the United States, but it is conceivable, and perhaps likely, that if the United States were engaged with one, the other would seize the opportunity to take aggressive or malign action.

and allied interests, the actors and trends that threaten them, and the opportunities for countering them.

This report presents a strategy that addresses these numerous, simultaneous, and integrated challenges to national security and defense, and paves a path forward as the United States and its allies and partners construct a new game more favorable to their interests.

Recommendations for the Next National Security Strategy (NSS)

This report provides the DoD with recommendations for the next NDS, and thus, does not provide whole-of-government national security recommendations. That said, the authors recognize strategic competition involves the use of all instruments of national power, not simply military. This document is focused on the complementary role the DoD plays in strategic competition, but the next NSS should guide the whole of government in these competitions, leveraging each instrument of national power: military, informational, diplomatic, financial, intelligence, economic, law, and development (MIDFIELD).

OVERARCHING: The Biden administration, in coordination and consultation with Congress, can improve the coordination and execution of the United States' overarching competition strategy and the nation's strategic messaging, and counter mis- and disinformation tools. Recommendations for the president include:

- The president should appoint a national strategic competition coordinator for China and another for Russia to the National Security Council to better execute and synchronize whole-of-government competition efforts. The position would enhance cross-cabinet visibility and must be empowered with direct access to the president to address the acute, global-level challenges created by strategic competition with China (and Russia).
- The president, in coordination with Congress, should substantially increase
 appropriations for the Department of State's Global Engagement Center; it must be
 given the authority to lead whole-of-government strategic messaging and offensive
 information operations campaigns, and it needs to lead whole-of-nation efforts to
 engage with social media companies, and with allies and partners to create a coherent
 and effective campaign for countering mis- and disinformation.

DIPLOMACY: The *Interim National Security Strategic Guidance* stated diplomacy will be the primary tool to implement the Biden administration's national security strategy. The post-World War II alliance network is a unique strategic advantage that must be fully leveraged. The United States must reaffirm and strengthen its commitment to existing allies and partners while developing new alliances and partnerships. US diplomatic power, particularly when combined with that of allies and partners, bolsters the rules-based international order and helps counter Chinese and Russian coercive diplomacy and malign actions. Recommendations for the United States include:

- Reinvigorate existing alliances such as NATO.
- Develop new alliances and partnerships, such as the recent Australia-United Kingdom-United States (AUKUS) security pact.
- Codify informal partnerships such as the existing Quadrilateral Security Dialogue (United States, India, Japan, and Australia; often referred to as "the Quad").

INFORMATION, INTELLIGENCE, AND LAW: The United States must be much more active and effective in the information domain, including developing national strategic messaging, expanding efforts to counter Chinese and Russian mis- and disinformation, and promoting coherent and compelling pro-US narrative(s). Recommendations for the United States include:

- Work with the nations of the world to develop and enforce international norms and standards for space and cyberspace.
- Develop a coherent whole-of-government strategic messaging campaign promoting
 two overarching narratives: 1) the US-led rules-based order has led to a period of
 unprecedented relative peace and prosperity; and 2) the United States is the partner of
 preference globally, as a more dependable and beneficial partner than either China or
 Russia.
- Coordinate a rapid whole-of-government response to mis- and disinformation campaigns.
- Expand information and intelligence-sharing agreements with allies and partners to more meaningfully integrate them into the US government's competition strategy.
- Use information as a weapon to "name and shame" malign actors on the international stage.
- Use strategic messaging to enhance the other instruments of national power.

ECONOMIC, FINANCIAL, AND DEVELOPMENT: The United States' underlying economic strength and open financial institutions are powerful tools that must be leveraged in strategic competitions as an incentive to prospective international partners. The US innovation base is a major comparative advantage over Russia, and to a lesser extent China, and should be nurtured. The United States must also balance developmental "carrots" (such as foreign direct investment) with economic "sticks" (such as sanctions) to encourage China, Russia, and others to play by existing international rules, as well as to expand US influence globally. Recommendations for the Biden administration include:

- Foster the United States' innovation base, including increasing support for clean energy, smart infrastructure, and potentially "game-changing" technologies such as artificial intelligence and machine learning, nanotechnology, quantum computing, and neural network architecture.
- · Expand foreign direct investment as an alternative to China's Belt and Road Initiative.
- Secure and diversify US supply chains, information technology, and intellectual property.
- Freeze and/or seize malign actor or group financing.
- Leverage targeted financial tools, such as sanctions, to encourage strategic competitors and regional aggressors to follow the rules-based international system.
- Enhance participation in multilateral trade agreements, including joining the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP).

GOALS OF THE NEXT NATIONAL DEFENSE STRATEGY (NDS)

HIS REPORT BUILDS upon published US national security guidance and provides recommendations for the Biden administration's forthcoming NDS. The 2017 National Security Strategy (NSS) and the 2018 NDS reoriented the United States from countering violent extremism to competition with China and Russia as the foremost national defense priority, and the Biden administration's 2021 Interim National Security Strategic Guidance reaffirmed that prioritization.²⁰ Though the most recent NSS and NDS guidance drove a focus on competition, greater clarity is needed on the goals of strategic competition. A clear theory of victory and means for implementation are critical for success in the next NDS. This report provides the DoD with both a methodology for what the goals of strategic competition should be and a road map for actions that the department and the services can take to help achieve them. Though this strategy is primarily focused on strategic competition with China and Russia, it accounts for regional aggressors such as Iran and North Korea, the continuing threat posed by violent extremist organizations (VEOs), transnational challenges such as pandemics, climate change, economic upheaval, and the erosion of the international rules-based order.

Theory of Success

This report's theory of victory is actually a theory of success, or "relative improvement." It is impossible to know how long strategic competitions will last, but it is likely to be many years or decades. Therefore, the desired end state of the next NDS should reflect the extended nature of interstate competition. Instead of the unlikely "win the competition with China," the next NDS should establish a more limited, but achievable, end state, such as "improve the United States' relative security position vis-à-vis China and Russia."

The next NDS should clearly lay out its national security goals and objectives and explain how execution of the strategy will help the United States compete, bolster its ability to deter conflict, and enhance its global leadership role. In his Interim National Security Strategic Guidance, Biden outlined his overarching goals for the national security enterprise: "Promote a favorable distribution of power to deter and prevent adversaries from directly threatening the United

States and our allies, inhibiting access to the global commons, or dominating key regions."²¹ The goals of the next NDS should flow from this vision, and *Seizing the Advantage* outlines four major national defense goals, each with their own measurable, supporting objectives:

- Support the revitalization of the United States' leadership role, alongside allies and partners, to rejuvenate the international rulesbased order.
- Improve the United States' and its allies' relative security position vis-à-vis China and Russia while reestablishing a favorable international distribution of power.
- Deter regional aggressors and violent extremists and degrade their ability, and that of their proxies, to conduct malign actions across the competition continuum.
- Protect the homeland from threats across the competition continuum.

Seizing the Advantage's National Defense Goals and Subsidiary Objectives

Support the revitalization of the United States' leadership role, alongside allies and partners, to rejuvenate the international rules-based order. Objectives:

- Rebalancing global force posture with a proactive force presence while maintaining robust expeditionary capabilities and ready forces.
- Enhancing defense relationships with allies and partners.
- Improving and amplifying the strategic messaging of the United States as the partner
 of preference for security and stability around the world.
- Enhancing US defense technological leadership and expertise.

Improve the United States' and its allies' relative security position vis-à-vis China and Russia while establishing a favorable international distribution of power. Objectives:

- Deterring armed conflict with China or Russia, or their proxies, including Chinese
 aggression toward Taiwan or Japan or in the South China Sea, and Russian aggression
 toward NATO, in Ukraine or Georgia, or in the Middle East. It is important to differentiate
 among these potential conflicts—for example, the United States and its allies currently
 possess greater advantages in a potential war with China over Japan than a more realistic
 war over Taiwan—and therefore policy makers must plan accordingly.
- Enhancing the military capabilities and interoperability of allies and partners to engage in competition and armed conflict in all domains.
- Deterring or degrading China's and Russia's willingness and ability to conduct or support gray-zone activities such as malign cyber actions against the United States, its interests, and those of its allies and partners.
- Countering China's and Russia's anti-US narrative and promoting compelling counternarratives.
- Maintaining technological superiority in critical areas, including by improving coordination and relationships with industry, fostering a defense innovation base, and recruiting, training, and retraining data and tech-savvy personnel.

Deter regional aggressors and violent extremists and degrade their ability, and that of their proxies, to conduct malign actions across the competition continuum. Objectives:

- Degrading Iranian support to malign actors in the Middle East and around the globe and protecting freedom of navigation in the Strait of Hormuz, Arabian Gulf, and the Gulf of Oman
- Deterring North Korean military action against South Korea, enhancing sanctions enforcement efforts, and degrading illicit support to the North Korean regime
- Denying a safe haven for VEOs
- Enhancing the United States, its allies, and partners' "over-the-horizon" counterterrorism capabilities

Protect the homeland from threats across competition continuum. Objectives:

- Preventing non-state actors from acquiring weapons of mass destruction
- Significantly enhancing missile defense capabilities
- Enhancing the DoD and defense industrial base's cyber defenses and network resiliency, adjusting DoD cyber authorities to allow for defense of critical infrastructure, and aiding industry when requested and in accordance with applicable laws
- Degrading and countering mis- and disinformation campaigns, including anti-US narratives promoted by both state and non-state actors
- Preparing for nontraditional security challenges, including climate change and global pandemics

Progress toward these goals and objectives can and should be assessed throughout the time horizon of the strategy (through 2025), allowing the DoD to determine whether the strategy is having the intended effect, or if modifications must be made. Each of these goals and objectives provides the "why" the United States needs to engage in strategic competition. These competitions represent a clash of worldviews: the United States leading the revitalization of the international rules-based order with allies and partners on one side, and China and Russia on the other side, both determined to erode the existing rules-based order in favor of new orders with their respective interests at their cores.

These goals are especially critical now, as the world is at a crossroads. Allies and partners are concerned about possible US retrenchment from its global leadership role, while the United States' strategic competitors are challenging US and allied resolve in flashpoints such as the Taiwan Strait and Ukraine. The United States cannot afford to ignore these challenges or delay its response to them, or friends and foes alike may perceive a continuing US decline, precipitating more aggressive and destabilizing behavior by competitors. Instead, the United States must forcefully and unequivocally signal its resolve and strength. An NDS that focuses on deterring strategic competitors and eroding their relative security gains is a critical step in the United States' whole-of-government approach to revitalize its global leadership and support for the international rules-based order.

THE ELEMENTS OF THE NEW STRATEGY

3.1 A PARADIGM SHIFT: EMBRACING THE COMPETITION CONTINUUM

HIS STRATEGY IS PREMISED on an emerging paradigm that embraces the concept of a "competition continuum" as introduced by the US Joint Chiefs (JCS) in 2019. As the JCS described, "Rather than a world either at peace or at war, the competition continuum describes a world of enduring competition conducted through a mixture of cooperation, competition below armed conflict, and armed con-

flict."22 Seizing the Advantage embraces the continuum and outlines the need for a departmental paradigm shift, geared toward competing and deterring today across the continuum, and preparing for a potential future fight. Today, the DoD is comfortable deterring and preparing for conventional conflict, but much less experienced and comfortable competing in the gray zone; this needs to change. The DoD should embrace the competition continuum, which requires not relying solely on conventional action or capabilities. China and Russia have been engaged in competition below the threshold of armed conflict, also known as the "gray zone," with the United States and its allies and partners for years, albeit in dif-

Terms of Reference

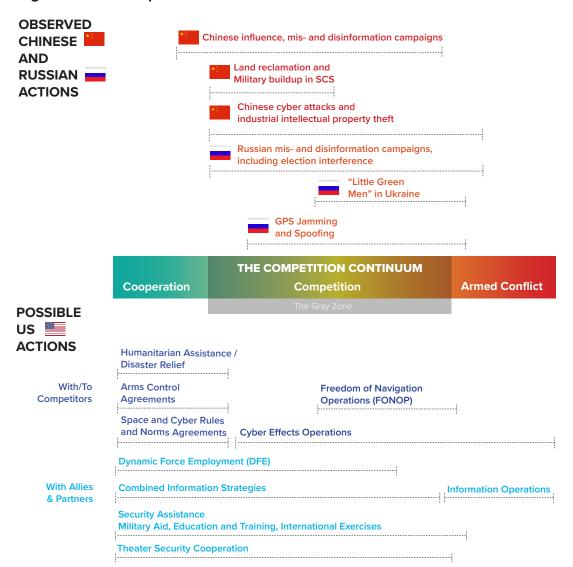
"The gray zone" and "hybrid conflict," and "below-threshold activities" are often used interchangeably. Seizing the Advantage will define and standardize the use of these terms:

- The Gray Zone: defensive and offensive activities that
 are above the level of cooperation and below the
 threshold of armed conflict. Gray-zone operations are
 often but not always clandestine, covert, unofficial,
 or outside accepted norms of behavior. Gray-zone
 operations are aimed at undermining the security of the
 target state without triggering active armed conflict.
- Hybrid Conflict: (also referred to as hybrid warfare): A subset of statecraft using the diplomatic, informational, military, and economic (DIME) levers of national power across the entire competition continuum including cooperation, competition (including gray-zone operations), deterrence, and armed conflict for the purposes of achieving national security objective(s) against a state or non-state actor(s)s

Using these definitions, this strategy argues the United States should conduct hybrid conflict (the action) in the gray zone (the environment).

ferent ways. China's *fait accompli* military buildup in the South China Sea; its sustained cyberattacks, including the theft of trillions of dollars of US intellectual property; Russia's hybrid toolset, including its "annexation" of Crimea and the use of masked "little green men" in Ukraine; its interference in Western elections; its promotion of mis- and disinformation to sow discord in the United States; and interference in democratic elections are just a few examples of these states' aggressive activities in the gray zone.²³ These activities have chipped away at the established international rules-based order and incrementally eroded the United States' domestic stability and relative security position.

Figure 1. The Competition Continuum



Note: This graphic visually depicts the competition continuum. The top section represents hybrid activities China and Russia have executed in the gray zone. The bottom section represents actions the United States, its allies, and partners can take across the continuum to cooperate with, compete with, and defend against China and Russia. The spread of activities

The most desirable outcome of strategic competition is for both China and Russia to move back toward participation in and respecting the boundaries of the international rules-based order.

that extend across the spectrum depicts the fluid nature of the continuum.

Source: Original graphic by the authors.



This strategy is premised on the idea that conflict with China and/or Russia is not inevitable. The most desirable outcome of strategic competition is for both China and Russia to move back toward participation in and respecting the boundaries of the international rules-based order. Therefore, the United States should look for areas of common interest to cooperate with China and Russia, such as humanitarian assistance, disaster relief, and addressing climate change. Cooperation could help ease tension between the United States and its strategic competitors and improve security.

At the same time, both China and Russia argue that they reject the current rules-based order as a Western construct, and China has purported a vision of global authoritarian order.²⁴ It is important to call out this vision as incompatible with the existing order and for the United States and the international community to meet authoritarianism and anti-competitive and anti-liberal strategies globally with resolve.

While there are compelling reasons for the United States to pursue this competitive strategy, and the United States has no desire for war, it is nonetheless important to recognize that this competitive strategy could result in undesirable escalatory pressures. To manage these pressures, the United States should build viable off-ramps from conflict based on incentives, disincentives, and deterrents. Specifically, the DoD should support interagency efforts to engage Russia and China on arms control, both at the nuclear level, and on other measures, like fissile material production, missile proliferation, and the spread of lethal autonomous weapons. Even where arms control seems infeasible, the DoD can contribute to strategic stability dialogues—like those recently resumed with Russia. Finally, the DoD should redouble its efforts to encourage professionalism and adherence to protocols in close encounters with rival forces in peacetime as well as maintain "hotlines" to reduce the risk of accident and manage de-escalation in the event of crisis.

That said, the United States must compete where it is strategically important to its vital interests and those of its allies and partners. Finally, the United States must prepare a force that can win an armed conflict with one or both of the strategic competitors simultaneously and manage this balancing challenge by relying on and helping enhance the military capabilities of allies.

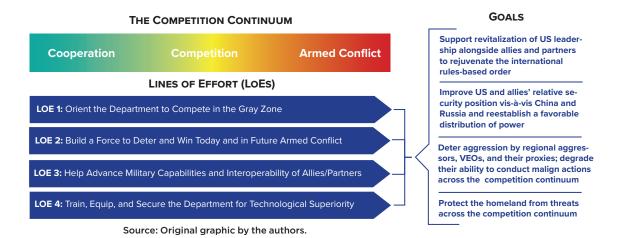
3.2 LINES OF EFFORT

This report presents a strategic approach that will put the United States and its allies and partners on a path to achieving the national security goals outlined in Chapter 2. At the heart of this approach are four lines of effort (LOEs) which direct the DoD to: compete in the gray zone; build a force to deter and, if necessary, win armed conflict today and in the future; enhance US defense relationships with and the military capabilities of allies and partners; and train, equip, and secure the department for technological superiority.

Figure 2. The Strategic Approach

Overarching Goals: "Promote a favorable distribution of power to deter and prevent adversaries from directly threatening the United States and our allies, inhibiting access to the global commons, or dominating key regions."

— Interim National Security Strategic Guidance



Line of Effort (LOE) 1—The New Competition: Orient the Department of Defense to Compete in the Gray Zone. The DoD should be more active in the gray zone, executing offensive and defensive hybrid conflict activities that comport with US values. This includes activities in the cyber and information domains and supporting interagency efforts using all instruments of national power. These efforts ought to support the greater whole-of-government competition strategy and should be focused on countering malign Chinese and Russian activities, eroding anti-American narratives, and, along with allies and partners, reinvigorating the international rules-based order. This line of effort reflects the need for a broader definition of strategic competition, one that demands a greater and more defined role for the DoD, and in support of other departments and agencies, in areas where the United States needs to compete now along the competition continuum.

GUIDING PRINCIPLES FOR DOD HYBRID CONFLICT ACTIVITIES. As the DoD becomes more engaged in hybrid conflict activities, it needs a list of principles that binds and guides those actions.

1. Hybrid conflict is a whole-of-government effort that requires centralized authority. Military activities should augment US diplomatic, informational, and economic tools. The DoD's efforts should be conducted with and complement interagency efforts that, as described in the "Recommendations for the Next National Security Strategy (NSS)" box earlier in this report, should be centralized to ensure coherent management of US competition with China and Russia. In addition, working with and learning from allies and partners is key to the success of hybrid operations.



Operators from the United Kingdom Special Forces sprint along a cat walk following an assault on an oil rig during exercise Night Hawk 21 on October 6, 2021. Hosted by Denmark, Night Hawk 21 brought together Special Operations Forces from 13 NATO Allies and partners to test their ability to work together through a series of complex counter-terrorism and hybrid conflict scenarios.

- 2. Invest in gray-zone capabilities. The DoD should invest in hybrid conflict training, capacities, and capabilities. If the department underinvests against one of China's main lines of effort, gray-zone conflict, then it faces a lose-lose proposition of either abandoning the battlefield or escalating into armed conflict. As such, resourcing below-threshold conflict is key and requires a different approach to the DoD's largely capabilities-based strategy.
- 3. Engage when strategically important. The DoD does not have the capacity to respond to every adversary gray-zone activity; thus, it should engage when it is strategically important to do so, such as in response to a significant malign activity, or when a unique opportunity presents itself.
- 4. Hybrid conflict includes both offense and defense. The DoD should not only defend against hybrid conflict activities; rather, it needs to take the offense to improve the United States' relative security position and reinforce the international rules-based order. The United States should work to favorably shape the cyber, diplomatic, and information environments, and achieve strategic effects against adversaries in the gray zone.
- **5. Strategic messaging is a force multiplier.** Every action in the gray zone should have an information campaign associated with it.
- 6. Do not stray from American ideals. Though the DoD must be active in the gray zone, its activities should not stray from US morals, values, and laws. The United States is not in the business of misinformation, but it can and should use the weight of truth and factual information, which

is on its side, and proactively shape the information environment to counter false narratives.

OPERATIONAL PARAMETERS FOR HYBRID CONFLICT ACTIVITIES.

The DoD should also work with the interagency to develop whole-of-government responsibilities and authorities. For those activities the DoD is delegated, the department should develop rules of engagement for its hybrid conflict activities and it should be granted the authorities (of approval, initiation, issuance, and coordination) necessary to rapidly counter malign activities in the gray zone and seize opportunities to improve its relative security position.

HYBRID CONFLICT TOOLKIT. Operating in the gray zone will be a new experience for most in the department. The DoD needs to develop and publish a "toolkit" to its components describing some of the types of activities that can be used in the gray zone. Optimally, this document should be part of a more comprehensive whole-of-government toolkit.

The Whole-of-Government Hybrid Conflict Toolkit

The list of possible offensive and defensive tools used in hybrid conflict is near limitless and should continue to expand as more options and accesses are available, and as friendly tactics, techniques, and procedures develop. These are just a few of the potential whole-of-government options in The Hybrid Conflict Toolkit:

Diplomatic: establishment of international rules and norms for space and cyber; development of new alliances (such as AUKUS) or codification of informal partnerships (such as "the Quad"); expansion of NATO Article V protection to include large-scale hybrid attacks; UN resolutions against certain hybrid conflict activities.

Information, Intelligence, and Law: release attribution of cyberattacks and other hybrid conflict actions; rapidly counter mis- and disinformation campaigns with accurate information and counternarratives; identify sources of mis- and disinformation ("name and shame"); identify and expose illicit activity (such as sanctions evasion, corruption, etc.); release embarrassing information about competitors (including leadership corruption, crackdowns on civil liberties, etc.); use information to create wedge issues either between the strategic competitors or between either China and Russia and their international partners (such as identifying China's "debt trap diplomacy"), between Chinese leaders, or between Russian President Vladimir Putin and Russian oligarchs.

Military: shows of presence such as Dynamic Force Employment (DFE) deployments; cyber operations (including, but not limited to Distributed Denial of Service [DDoS], cyber exfiltration, release of adversary malicious code and friendly vulnerabilities); kinetic or non-kinetic action against proxies and/or mercenaries.

Economic, Financial, and Development: foreign direct investment to allies and partners; freeze and/or seize threat financing to proxies; freeze and/or seize financing from malign cyber actors; sanctions against nations and/or businesses in those nations supporting malign actors, countering adversarial energy and trade coercion.

USE HYBRID OPERATIONS TO IMPROVE CONVENTIONAL DETERRENCE. While building up its hybrid conflict capacity, the DoD should recognize that adversaries will use hybrid conflict until they can acquire a coercive deterrent against the United States and its allies. It is in the United States' interest to contain engagement with China and Russia to the cooperation and competition sections of the competition continuum for as long as possible. Successfully doing so not only helps avoid armed conflict, but it also buys time and space for the United States to improve its force posture and invest to ensure its technical overmatch vis-à-vis China and Russia in case of armed conflict. However, to successfully contain engagement, the United States must get better at proactively engaging in and shaping the gray zone by investing in hybrid competencies while it continues to build conventional capabilities.

Line of Effort (LOE) 2—The New Battlefield: Build a Force to Deter and Win Today and in Future Armed Conflict. The DoD must both reinforce its traditional strategic deterrent and expand its current concept of deterrence, embracing and codifying the more comprehensive whole-of-government, whole-of-alliance Integrated Deterrence concept. Additionally, the department needs to remake its force to dominate the data-centric, networked, fast-paced, and all-domain battlefield of the near future. Tough fiscal realities in a world of numerous simultaneous threats demand clear investment and divestment priorities for the services and the department writ large.



Two Air Force F-35A Lightning II aircraft fly in formation alongside Spanish Eurofighter Typhoons after completing a training scenario at Los Llanos Air Base in Spain on June 10, 2019. These exercises increase interoperability with allied nations, a key pillar of *Integrated Deterrence*.

BALANCE CRITICAL FUNCTIONS ACROSS THE COMPETITION CONTINUUM. The DoD must execute three critical functions across the competition continuum in order to adapt to the new battlefield:

- First, the department and the services must compete now, both in the gray zone and with "traditional" military responses, including force posture and flexible response options.
- Second, the DoD must deter conflict with a more comprehensive Integrated Deterrence approach.
- Lastly, the DoD must be prepared to dominate and win armed conflict, even in an era where force overmatch is harder to gauge and achieve.
 This requires rebalancing global force posture and designing the force of the future.

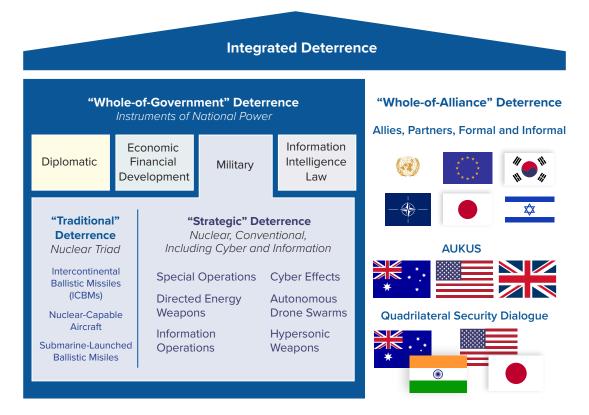
The first function is covered above in LOE 1, while the other two are described below.

DEVELOPING THE INTEGRATED DETERRENCE CONCEPT. The United States has long relied on multiple tools of national power as well as nuclear and conventional weapons to deter crisis and conflict. Secretary of Defense Lloyd J. Austin III has proposed unifying these tools into a more comprehensive concept of deterrence, which he calls Integrated Deterrence and defines as, "using every military and non-military tool in our toolbox in lockstep with our allies and partners. Integrated Deterrence is about using existing capabilities, and building new ones, and deploying them all in new and networked ways."²⁷ The DoD has not yet published guidance to refine the concept, so this report describes how the concept should be developed.

Expanding "Traditional Deterrence" to "Strategic Deterrence." To deter nuclear and major nonnuclear strategic attacks, the United States relies on its nuclear triad of land-based ballistic missiles, submarine-launched ballistic missiles, and cruise missile and gravity bombs delivered by aircraft. These delivery systems, as well as nuclear command, control, and communications and underlying nuclear infrastructure, need an urgent update. Traditional nuclear deterrence will remain at the core of US national security. However, given current threats of nuclear escalation at the theater level as well as nonnuclear strategic threats at the strategic level, the concept of deterrence needs to be broader. First, the United States needs to expand its nuclear capabilities and concepts of operations to deter nuclear use at the theater level. Both Russia and China possess the capabilities, and perhaps the doctrine, to carry out low-yield nuclear attacks on US forces or allies to force the conclusion of a US military operation (i.e., "escalate-to-deescalate"). The United States needs to convince Russia and China that such attacks could not succeed—and convince US allies and partners of the same. Second, nonnuclear weapons and the emerging technologies that enable them (such as cyberattacks, counterspace attacks, and conventional hypersonic missiles) offer the potential to achieve strategic effects at intercontinental ranges without nuclear use. The United States must develop these capabilities both to deter nonnuclear strategic attacks by adversaries and to achieve nonnuclear strategic effects of its own when warranted.

- Whole-of-Government Deterrence. The military provides a powerful deterrent, but it is just one of numerous instruments of power the United States can wield. Diplomacy, the carrot-and-stick approach of the economic, financial, and developmental instruments of power, and the power of information, intelligence, and law can all be leveraged to deter potential adversaries by making the perceived costs prohibitive for strategic competitors and regional aggressors.
- Whole-of-Alliance Deterrence. The United States enjoys an overwhelming comparative advantage over both China and Russia in its web of alliances and international relationships. The capabilities of these allies and partners must be integrated to provide the most comprehensive set of response options and make the cost on a potential adversary appear prohibitive. Taken together, this more expansive strategic, whole-of-government, and whole-of-alliance Integrated Deterrence concept is more likely to deter China, Russia, and other malign actors.

Figure 3. Integrated Deterrence



Source: Original graphic by the authors

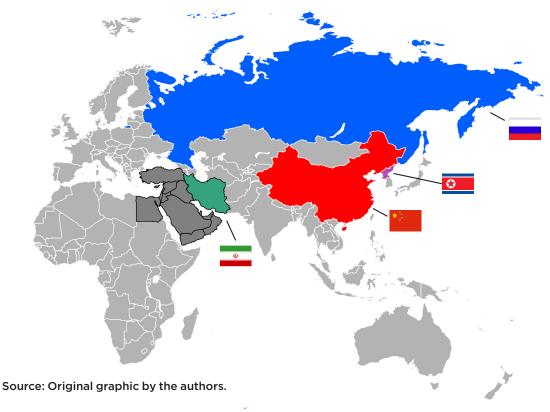
REBALANCE THE GLOBAL FORCE POSTURE. The strategic simultaneity problem should drive the United States to make tough decisions on force posture, weight of effort, and risk. The DoD should shift from its primary focus on Central Command (CENTCOM) to a more balanced and tailored approach that assigns and apportions the force structure needed to deter strategic competitors, regional aggressors, and VEOs, and win armed conflict if necessary.

- China. Given the threat posed geopolitically, economically, and militarily, China must be considered the top national security challenge. The United States must work closely with allies and partners, including the new Australia-United Kingdom-United States (AUKUS) trilateral security pact, and the Quadrilateral Security Dialogue (United States, India, Japan, and Australia), among others to deter and counter Chinese aggression. Armed conflict with China is likely to be primarily an air/sea fight, so the weight of effort for highend naval capabilities and capacity should be in the Indo-Pacific.
- Russia. The United States' secondary weight of effort should be on Russia, which continues to be active in hybrid conflict, and flouts international rules and norms. Given the extent and strength of the United States' alliance structure in Europe, compared to the Indo-Pacific which is relatively nascent, it should rely more heavily on NATO allies to fill gaps in Europe while it balances between China and Russia. The United States must integrate and rely heavily on its web of European allies and partners, largely through NATO. Any conflict with Russia in Europe is likely to be an air/ground fight, so the weight of effort for land capabilities and capacity should be in Europe. The United States and its NATO allies should add to enhanced forward presence (eFP) in the Baltic states and Poland, expand forces on a more persistent basis to Romania and Slovakia, and increase their naval presence in the Black Sea.
- Balanced and Differentiated Force Posture Model. The naval component weight of effort should be on the Indo-Pacific and the land component weight of effort should be on Europe. Space and cyber capabilities will be global, with a focus on regional and problem set expertise. The US Marine Corps (USMC) will continue to be the United States' "force in readiness," postured to respond to crises around the world. The US Air Force (USAF) should function as the "swing force," able to rapidly shift focus based on need.
- Latticed Defense Concept. This new, globally oriented force posture
 model must be designed as both joint and combined from the start.
 The United States must rely on its allies and partners to accept a
 greater role in defense burden sharing, while empowering its allies
 and partners by fully integrating them into planning and operational
 concept development. By describing the vision of the wars of the
 future, the United States can help its allies and partners build the

capabilities necessary to fight these data-centric, networked, and fast-paced conflicts. This latticed defense approach is how the United States can tackle the strategic simultaneity problem, thereby competing, deterring, and preparing to defeat China or Russia as required.

- Risk. The United States should continue to focus on regional aggressors Iran and North Korea. But with the preponderance of effort against its strategic competitors, the United States will need to assume risk in the deterrence of these nations and in the fight against VEOs.²⁸
 - Iran. The United States should rely on its allies and partners to deter Iranian aggression as its permanent and rotational presence in the region declines. In particular, the United States must depend on Israel and its Gulf partners to deter Iranian regional military aggression and a breakout nuclear weapons program. The Abraham Accords and their follow-on agreements present an opportunity for a reduction in tension and increase in stability and security in the Gulf region.²⁹ The thawing of Israeli-Arab relations is potentially the best means to moderate Iranian behavior and mitigate the risk the United States is taking with regard to Iranian aggression.
 - North Korea. The global rebalance should not take forces from the Korean Peninsula, and the increase in naval and air power in the Indo-Pacific should limit any risk of unacceptable North Korean military aggression. The United States can further mitigate the risk posed by a perceived lack of focus on North Korea by reaffirming and strengthening its diplomatic, military, and economic ties with South Korea and Japan, and it can leverage the Quadrilateral Security Dialogue with Japan, Australia, and India to decrease tensions with North Korea. This is also an area where the United States and its allies can attempt to cooperate with China in an attempt to moderate North Korean behavior.
 - **VEOs.** With such a global rebalance, the United States will be accepting greater risk in the fight against VEOs, potentially putting the homeland and US interests abroad under greater threat. In addition to relying on its global network of alliances and partnerships to deny VEOs a safe haven, the United States must hone its underdeveloped over-the-horizon counterterrorism (OTH-CT) capabilities to mitigate risk to the homeland. Central to OTH-CT will be a persistent, resilient, all-domain sensing and intelligence apparatus that develops, templates, and targets VEO networks to prevent large-scale attacks, and allows the United States to target and eliminate terror leaders and operatives. Special operations, uncrewed aerial vehicles, and long-range weapons will allow the DoD to take kinetic action even when its force posture in a region is reduced.

Figure 4. Global Force Posture



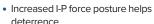
Russia

- Deter & respond to aggression against NATO
- Land- & air-centric force posture

Iran

- Reduced CENTCOM presence increases risk
- · Mitigate risk though reliance on allies and partners

North Korea 😥



• Allies & partners to deter and respond to aggression

China



- US's priority threat
- Naval- and air-centric force posture
- Work w/allies and partners to deter and respond to Chinese aggression

Violent Extremist **Organizations (VEOs)**

- Reduced CENTCOM presence increases risk
- Mitigate risk though OTH-CT capabilities and reliance on allies and partners

DESIGNING THE FORCE OF THE FUTURE. Armed conflict is increasingly becoming more networked, data-driven, faster, and contested from longer ranges and across all domains. Wars of the future are likely to be won by the side that can best harness available data, and rapidly synthesize that data for decision makers at all levels. The DoD must develop the war-winning capabilities of the future, including:

- 1. Enhanced C4ISR capabilities.
- 2. Enhanced data aggregation, correlation, fusion, and dissemination tools and algorithms.
- 3. Potentially "game-changing" technologies (including artificial

- intelligence and machine learning) and quantum information technology (including sensing, computing, and communication).
- 4. The DoD should embrace a new concept of mass and fires that seamlessly integrates kinetic and non-kinetic capabilities and effects, including cyber warfare, information operations, autonomous combat systems (including human-machine teaming such as the "loyal wingman" and "drone swarm" concepts) and penetrating and ultralong-range weapons (including hypersonic and directed energy weapons).³⁰
- 5. The DoD should take advantage of the relative decline in the deployment cost of space capabilities to recapitalize its satellite constellation. The constellation should have more satellites that are more resilient, with improved architecture for precision navigation and timing, communications, command and control, ISR, weather forecasting, and missile warning. It should include a high-low mix of exquisite satellites at nontraditional orbits and large constellations of small satellites which are individually attritable but resilient as an overall constellation.

Line of Effort (LOE) 3—The New and Established Friends: Help Advance the Military Capabilities and Interoperability of Allies and Partners.

The DoD plays a supporting role in the development and enhancement of alliances and partnerships, but the department must focus on deepening defense ties with these nations. The DoD must meaningfully integrate allies and partners into its operational concepts, mission planning, execution, and assessments. The DoD should also focus its efforts on improving the military capabilities and interoperability of allied and partner militaries, especially



Soldiers from 1st Battalion, 77th Field Artillery Regiment, 41st Field Artillery Brigade begin target acquisition from a M142 High Mobility Artillery Rocket System (HIMARS) on April 10, 2021 in Romania. The 41st FAB partnered with the US Air Force to deploy two HIMARS from Germany to the Romanian Coast during the training exercise.

in line with technological and doctrinal advancements. Geopolitical simultaneity across multiple regions around the world demands a greater role for allies and partners in supplementing US military presence and capabilities, especially in regions where the United States will be taking greater risk, such as the Middle East.

STRENGTHENING DEFENSE RELATIONSHIPS WITH EXISTING AND NEW ALLIES AND PARTNERS. The DoD needs to invigorate its defense relationships with militaries across the world through targeted security assistance, including military aid, education, and training, and international exchanges with its allies and partners. If the US government seeks to potentially expand partnerships or alliances, the DoD must support such efforts. The United States cannot surge meaningful relationships in times of crisis. Trust is built over time and the DoD must build those international defense bonds continuously.

PROACTIVELY AND REACTIVELY UTILIZE DYNAMIC FORCE EMPLOYMENT (DFE) TO AUGMENT PERMANENT PRESENCE. As part of its strategic approach, the 2018 NDS directed the DoD to be "strategically predictable but operationally unpredictable."31 A critical element of this approach was the DFE concept, which is designed to "more flexibly use ready forces to shape proactively the strategic environment while maintaining readiness to respond to contingencies and ensure long-term warfighting readiness."32 The intent of DFE is to send ready forces rapidly around the world to respond to crises or take advantage of strategic opportunities. In the last three years the DoD has directed numerous DFE deployments to multiple theaters around the world, including the US Army deploying High Mobility Artillery Rocket System (HIMARS) to Romania, the US Navy and USMC eight month Essex Amphibious Ready Group deployment to the Indo-Pacific, the Navy's Harry S. Truman Carrier Strike Group deployment to the Arctic Circle, and the USAF F-22 Raptor deployment to Japan to train with the Japanese Air Self-Defense Force.³³ Allies and partners need not fear DFE as a cover for US retrenchment; it is a method for forces to expand partnerships by using DFE deployments to train together and improve interoperability. Additionally, the DoD should use DFE to enhance defense relationships and work with allies and partners to identify proactive opportunities to enhance their military capabilities and interoperability, or to respond to aggression or malign activity rapidly and visibly.

IMPROVED AND EXPANDED BI- AND MULTILATERAL EXERCISES.

The United States needs to train with its allies and partners in realistic, large-scale, joint, and combined all-domain exercises, with a focus on interoperability. These allied and partner militaries must be integrated not only into execution, but also into the operational planning and debrief and assessment processes as well. Finally, the DoD should work with allies and partners to integrate them into live, virtual, and constructed training events, allowing for more integrated training opportunities.

SHARED UNDERSTANDING. The center of gravity for working with allies and partners is communicating and creating a shared understanding of the environment. An optimum, combined common operating picture (COP) does not exist currently. While the DoD has spent considerable time and effort to improve shared pictures over the past twenty years, efforts still fall short of requirements to compete against strategic competitors. Joint All-Domain Command and Control (JADC2) is the current effort to bring all aspects across the US military services under one umbrella. However, classification policies are outdated, and information sharing agreements do not meet the needs to fully incorporate allies into a shared picture.

Line of Effort (LOE) 4—The New Enterprise: Train, Equip, and Secure the Department for Technological Superiority. The DoD is seeing its technological and innovation superiority erode, particularly in relation to China. The department must halt this trend and reestablish technological superiority in vital warfighting capabilities. Implementing meaningful change in the other three lines of effort requires a more agile and modern department capable of seizing and sustaining critical advantages vis-à-vis competitors.

RECRUIT, TRAIN, AND RETAIN DIGITALLY LITERATE AND TECHNOLOGICALLY SAVVY PERSONNEL. Each service must recruit members who are trained in science, technology, engineering, mathematics, and data and computer science, as these are the skillsets required in the digitally networked battlefield of today and into the future. Additionally, the DoD must augment this digital and technological literacy with continuing education and training that hones members' skills and gives them experience working with the most advanced and innovative technologies available to the department. Finally, the DoD must retain these invaluable members by providing them challenging positions and a compelling mission.

EQUIP THE DEPARTMENT FOR TECHNOLOGICAL SUPERIORITY. The era of across-the-board US technological overmatch is coming to an end. The DoD must work much more closely with industry to: develop clear requirements, thereby allowing emerging technology firms to join the defense industrial base by competing for contracts and working as subcontractors to larger primes; accelerate the acquisition process to ensure new capabilities are integrated at the speed of relevance; and foster innovation and risk taking by its industrial partners. Open architecture, cross-domain, and cross-security enclave systems and networks should be a major focus of future procurement, with the goal of more rapidly fielding and upgrading cutting-edge technologies.

SECURE THE UNITED STATES' TECHNOLOGICAL BASE. The DoD's supply chain is at risk from continuing cyberattacks and intellectual property theft by China and Russia, foreign and domestic supply disruptions, and efforts by strategic competitors to compromise the department's supply chain. The DoD needs to deepen and expand its supply chain to prevent bottlenecks while working with industry to protect their vulnerable systems and networks. The DoD should communicate to Congress the value of allies in US defense supply chains so that efforts to secure these supply chains are more precise in limiting adversarial influence while not limiting the advantages of allied capabilities.³⁴ This is also an opportunity for the DoD to drive a broader discussion on securing critical infrastructure, an imperative which requires a whole-of-nation effort by the executive and legislative branches and by industry across multiple sectors.

This report's lines of effort should drive departmental change, including investment and divestment decisions, force development and design, global force posture, and operational execution and training concepts. Taken together, they support the United States' overarching goals of reestablishing a global leadership role and promoting a favorable balance of power.³⁵

GUIDELINES FOR IMPLEMENTATION

HE NEXT NDS MUST provide specific guidance on how to implement the strategy as quickly and effectively as possible. Seizing the Advantage provides a new paradigm for thinking about competition, a new operational warfighting concept, investment and divestment priorities, and a consolidated list of recommendations for the department and the services.

4.1 DRIVING THE PARADIGM SHIFT: ORIENTING TO COMPETE IN THE GRAY ZONE AND ACROSS THE COMPETITION CONTINUUM

No one federal department or agency currently has issue ownership over hybrid conflict across the interagency. To effectively meet adversaries where they are competing with the United States today, the DoD should shift its mindset to embrace and build offensive and defensive competencies across the competition continuum and in the gray zone. For its part, the DoD should be empowered with resources and human capital to take the lead on shaping the defense doctrine for competition below the threshold of armed conflict. This should include the following considerations for implementation:

- Create a Centralized Authority to Meet Global Threats Across the Competition Continuum. In line with this report's NSS recommendation for a national strategic competition director, a crossagency, central authority should be created to manage competition with China and Russia on a daily basis. This authority should have centralized ISR, command and control, situational awareness, and central military and civilian decision authority to respond to threats across the competition continuum. The success of every other recommendation hinges on a different approach to leadership and organization required to comprehensively lead on countering China and Russia.
- Defense Playbook for Hybrid Conflict. The DoD, in concert with other departments and agencies, should develop and publish a defense playbook for hybrid conflict. This playbook should outline creative response options the department could take in response to hybrid attacks in the cyber, information, economic, energy, and other domains. In addition, the playbook should detail offensive options to proactively shape the information and cyber environments, and cross-domain responses should be considered. The playbook should outline proportionate responses in one domain (e.g., cyber) to attacks in another domain (e.g., election interference). Codified doctrine and policy would enable greater flexibility and potentially further deterrence.

- A Hybrid Escalation Management Concept. The DoD should develop and build consensus around a hybrid escalation ladder framework. This concept should outline how to measure adversarial activities across the competition continuum and what responses different types of activities should elicit from the United States and its allies. Developing a shared understanding of what escalation and de-escalation look like in the gray zone will enable a better understanding of what types of attacks are worthy of different kinds of responses. An escalation framework will better position the department to maneuver across the competition continuum.
- Shared Hybrid Conflict Threat Picture. The DoD should detail the defense implications and nuanced differences between Chinese and Russian hybrid conflict and support the interagency, as well as allies and partners, with intelligence and information to better preempt and respond to attacks. Building an adequate and shared intelligence picture of the threat across the interagency—as well as among allies and industry—is key to understanding, managing, and responding to gray-zone attacks both within the United States and internationally.
- Organize and Train Hybrid Conflict Experts and Establish a Strategic Information Office. The services should develop a cadre of hybrid conflict experts who are organized, trained, and equipped to provide specialized expertise in information warfare, cyber warfare, and coercion tactics. This cadre would support the department's goal of effecting change across the competition continuum by conducting audience, actor, and adversary analysis; information activity and outreach; and monitoring and evaluating the information environment. The DoD should also establish an organization or office that is responsible for tailoring the department's strategic messaging campaigns and aligning them with national strategic messaging.

4.2 THE COMBINED WARFIGHTING CONCEPT

Since publication of the 2018 NDS, the DoD and the services have proposed multiple operational concepts, including Multi-Domain Operations (MDO), Joint All-Domain Operations (JADO), and Joint All-Domain Command and Control (JADC2). These warfighting concepts are incomplete or underdeveloped, and they fail to integrate allies and partners into a more comprehensive concept for future warfighting that the authors call the *Combined Warfighting Concept (CWC)*. The United States is highly unlikely to fight unilaterally in the future, so any warfighting concept should be combined from the start. Therefore, the DoD should publish a more comprehensive concept for future warfighting that consolidates existing concepts and meaningfully integrates allies and partners. The *CWC* posits that future armed conflict will be fought by a joint and combined force across all domains. This fight of the future is likely to be won by the side that can more rapidly and accurately execute John Boyd's

Observe-Orient-Decide-Act (OODA) Loop.³⁶ The *CWC* should not only drive investment and divestment decisions by the DoD, it should also inform the defense acquisition and operational concept decisions of allies and partners.

- All-Domain Sensing. The force of the future must rapidly aggregate, correlate, fuse, and analyze vast amounts of data. Sensing across all the physical domains, as well as cyberspace, and the use of publicly available information will allow the United States and its allies and partners to Observe with greater precision. Acquiring data will not be the primary problem in future conflicts. Analyzing the massive amounts of data and accurately Orienting to the operational environment will be the hardest challenge. Finding, fixing, and tracking targets will be a data-driven exercise designed to provide timely and accurate intelligence to shooters wielding a host of revolutionary kinetic and non-kinetic weapons.
- All-Domain Command and Control. The force of the future must be
 able to pass information quickly and securely from national decision
 makers to operational commanders to tactical warfighters and back.
 Platforms and networks across the joint force, the coalition, and
 across classification domains must be able to securely and reliably
 pass that data. Additionally, every participant in this networked grid
 must not only be a consumer of data, but a contributor as well. The
 system must also be distributed in that it should be able to operate
 effectively even when components are disrupted.
- All-Domain Fires. The force of the future will redefine traditional concepts of mass and fires. First, mass and fires do not need to be represented by physical presence, as cyber effects and information operations can drive effects on the battlefield of the future. Additionally, fires no longer need to be initiated near the battlefield or by platforms that are placing themselves at risk to the enemy. Autonomous combat systems, attritable weapon swarms, ultra-long-range fires, and penetrating crewed and uncrewed platforms and weapons, including hypersonic missiles and directed energy weapons, are revolutionizing fires while mitigating the risk to friendly platforms and personnel.

STRENGTHENING DEFENSE RELATIONSHIPS WITH ALLIES AND PARTNERS. The DoD should invigorate its targeted security assistance to allies and partners, including designing strategic dependencies in major weapons, ISR, and C2 architectures, especially where the United States can toggle on/off flows of intelligence, enhanced encryption, and weapons selection. Stability of the rules-based order depends on alliances being greater than the sum of their parts; to this end, the DoD should incorporate allies much more into DFE, giving them an opportunity to influence the locations, the forces, and the intended effects of DFE deployments. This creates the ability to message the United States' displeasure across the alliance and provide a united front.



An Air Force technical sergeant displays a drone during a training exercise at Goodfellow Airforce Base, Texas. Low observable, cheap, and attritable ISR capabilities such as drone swarms should be a key investment priority of the next National Defense Strategy.

4.3 FORCE TO WIN FUTURE ARMED CONFLICT

Building the Force of the Future. The DoD will need to make very tough budgetary trade-offs, investing in the capabilities needed to win modern, high-tech, high-intensity conflicts of the future. These decisions must be made with the focus on preserving the required capacity to meet global obligations, while also developing the high-end capabilities to defeat China. This means each service should accelerate divestiture of platforms and systems to recapitalize and modernize the force. These decisions should be driven by the capabilities required to win against the most dangerous threat.

1. Investments. When deciding on the investment decisions for the force of the future, it is important to begin with the mission requirements. What does the force need to do to deter armed conflict and win a large-scale, conventional conflict against the pacing threat? Fundamentally, the force must be able to find targets, pass that data quickly, and destroy or neutralize the target rapidly using kinetic or non-kinetic means. Force requirements should flow from the basic mission sets and modernization by 2030 will be critical. The force will need to be more agile and flexible, tech savvy, and include those with technical cyber, data science, and information expertise. Increases in the range, accuracy, and lethality of modern weapons necessitates investment in new capabilities across the force to counter adversarial attacks, ensure deterrence, and take advantage of leading-edge technology for defense purposes.

- a. Modernization of the Nuclear Triad. The United States' strategic deterrence is dependent on its nuclear weapons and their delivery vehicles, many of which are well beyond their intended service life. Within the next decade, the USAF will begin replacing Minuteman III intercontinental ballistic missiles with the Ground Based Strategic Deterrent (GBSD), and operationally deploy the B-21 Raider nuclear-capable bomber, the navy will begin replacement of the Ohio-class ballistic missile nuclear submarines with the Columbiaclass submarines, and there are plans to develop a sea-based nuclear cruise missile.³⁷ Equally essential is the modernization of nuclear command, control, and communications and, in concert with the Department of Energy, investment in the underlying nuclear infrastructure.
- b. Enhanced Intelligence, Surveillance, and Reconnaissance (ISR) Capabilities. The ability to find, fix, and track mobile targets will be crucial in all future conflicts. Over the past two decades, the US military has honed its skills in finding and tracking high-value individuals, but the force is not as experienced, or effective, in doing the same against conventional military targets such as mobile missiles. The bulk of the airborne ISR fleet is legacy crewed and uncrewed platforms that will not be survivable in a high-end conflict with either strategic competitor and certainly would be at risk against a regional aggressor. Satellite ISR systems provide exquisite intelligence but based on cost and capacity are limited in their ability to provide persistent coverage of high-value military or leadership targets. The DoD must invest in survivable, lowobservable airborne ISR platforms and attritable (low-cost and/or single-use) platforms. Additionally, the department must invest in a constellation of small satellites, either owned by the DoD or leased from commercial sources. Persistent, multidiscipline intelligence coverage of adversary nations and targets will be vital in both preparation for and in an armed conflict.
- c. Enhanced Data Aggregation, Correlation, and Fusion Tools. The Defense Intelligence Enterprise is transitioning from a mindset of not enough intelligence collection for timely and accurate analysis to too much intelligence collection to assimilate and provide timely and accurate assessments. This problem will be magnified

as the DoD increases its reliance on small satellites, exponentially increasing collection on targets. The data available will overwhelm the enterprise. This is a problem tailor-made for enhanced DoD-commercial integration. The technology giants are accustomed to, and comfortable with, aggregating massive amounts of data. The department needs to invest in the hardware, software, and algorithms necessary to aggregate, correlate, and fuse the massive amounts of data that are available now, and will likely be available in the future. These tools will not replace defense intelligence analysts, but rather enhance their analysis, saving them time in the aggregation of data and freeing time up for them to analyze the data presented to them.

- d. Deployment of Artificial Intelligence and Machine Learning (AI/ML) Tools and Algorithms. The Joint Artificial Intelligence Center has started the work of providing value-added AI tools to warfighters, but there is much to do. AI/ML tools can be applied to a variety of problems, both to improve friendly processes and to analyze intelligence data on adversaries. Logistics and maintenance are primed for AI/ML-derived efficiencies that can help the services fix their platforms more quickly and deliver needed supplies more rapidly and securely. AI/ML tools will work cooperatively with data aggregation tools to provide intelligence analysts with data-driven insights on adversaries and competitors that may not be identified via traditional intelligence analysis tradecraft.
- e. Leverage Quantum Information Technology. The exploitation of quantum principles for information technology has applications across sensing, communication, and computing. In the near term, quantum technology can enhance sensors like radars and magnetometers (for hunting submarines, among other applications). In the medium term, quantum principles can be applied to communications, which may be far less vulnerable to interception than other means. Finally, quantum bits (qubits) can be applied in computation to solve certain equations extremely efficiently and, therefore, defeat contemporary encryption.³⁸ This technology is still in the nascent stage, and its applicability to military problems is just now beginning to be explored.
- f. Joint All-Domain Command and Control (JADC2). According to the USAF, the executive agent for JADC2, the vision for the concept is "connecting distributed sensors, shooters, and data from all domains to joint forces, enabling coordinated exercise of authority to integrate planning and synchronize convergence in time, space, and purpose." Key to achieving this vision are the rapid, secure, and interoperable networks that enable distribution of data and C2 actions across security classification levels to allies and partners, and throughout the strategic, operational, and tactical levels of war.

The DoD must invest in the network architecture to enable this rapid and secure passage of data.

g. Operational Deployment of Next-Generation Weapons.

- i. Cyber Warfare Capabilities and Weapons. The DoD is already investing billions of dollars annually in offensive and defensive cyber warfare capabilities, and this level of investment must be maintained. To maximize the utility of these investments, the department should evaluate the return on investment to focus its spending on high-payoff cyber capabilities. Additionally, the department needs to focus on recruiting, training, and retaining cyber-savvy personnel to continue to develop a cadre of cyber warriors. Lastly, the department needs to focus on protecting its networks across classification levels and needs to ensure future weapons systems and networks are equipped with quantum-resistant encryption.
- ii. Autonomous Combat Systems. The DoD must increase its investment in uncrewed and autonomous combat systems. These systems can either be high end with enhanced survivability characteristics such as low-observability or dedicated self-protection countermeasures, or low-cost, attritable systems such as drone swarms. The department must procure both types in a low-/high-end mix. These systems can be either fully autonomous or use human-machine teaming, such as the "loyal wingman" concept.
- iii. Penetrating and Ultra-Long-Range Weapons. The force of the future must be able to destroy targets anywhere in the world. To penetrate advanced, integrated air defense systems, the weapons of the future need to be capable of extremely long-range engagement, whether air, sea, or land launched. Additionally, these weapons must have enhanced survivability provided by one or more of the following characteristics: low observability, very high speed (e.g., hypersonic weapons), and/or dedicated self-protection measures such as onboard electronic attack and expendable decoys.
- iv. Hypersonic Weapons. The United States' strategic competitors are racing to deploy operational hypersonic nuclear weapons, as both Russia and China have begun testing hypersonic glide vehicles that can carry nuclear payloads. The United States has been testing hypersonic weapons for decades, but the DoD must operationally deploy airborne, ground-based, seaborne, and submarine-launched hypersonic weapons, bringing every spot in the world in range and putting every target at risk with conventional weapons in a period of minutes, as opposed to hours, or even days now.⁴⁰ There is no defense against hypersonic weapons at this time, and the United States cannot afford to fall behind in the race to this revolutionary weapon.
- v. Directed Energy Weapons. The United States and its competitors

have also been researching and testing directed energy weapons for decades, with small-scale use today. Directed energy has the potential to invert the cost curve, significantly reducing the cost per round and providing a near limitless inventory of "ammunition." This is another weapon that can be deployed in various physical domains, but ground-based and sea-based provide the most likely domains for the deployment of this potentially game-changing technology.

- h. Space Systems. The United States needs to urgently modernize its paradigm for defense and intelligence space systems. In modernizing its current satellite constellations for precision navigation, ISR and space surveillance, weather forecasting, and missile warning, the United States should embrace a high-low mix of exquisite capabilities at nontraditional orbits and large constellations of small satellites. Moreover, the United States should embrace the use of commercial space services and the hosting of military sensors on allied and commercial payloads.
- i. Improved Training Systems. The DoD must increase funding for realistic training events and systems, including the use of live, virtual, constructive (LVC) training. These training systems, while often requiring a large up-front investment, can save large sums of money because they allow multiple training events to occur, including joint and combined, that may be cost prohibitive if exclusively conducted live.
- 2. Divestments. Investments in the force of the future will require significant cuts to weapons systems, divestment of programs, and efficient force posture. Military capabilities should be routinely assessed for relevance, strength, and weakness. If a capability is assessed as having declining relevance or sustainability, it should be retired to free up resources for more relevant capabilities or emerging capabilities that are likely to be useful in modern and future warfare. The department must thoughtfully and respectfully engage with its partners in Congress to ensure they will support tough budgetary decisions, including the cancellation of multibillion-dollar programs, the divestment of beloved legacy systems, and even the closure of redundant or unnecessary bases and facilities.
 - a. Redundant Systems. The first major area for finding dollars for reinvestment is in the identification and elimination of redundant combat systems. These include capabilities that are found in multiple services that can be consolidated into a single service, and redundant capabilities and platforms found within a sole service. Not all redundant systems must be retired, as there are often operational considerations for having some capabilities reside in multiple services or multiple platforms with similar capabilities, but

there are redundancies built up from uncoordinated departmental and service procurement systems, and these systems and capabilities should be retired *en masse*. The Marine Corps has begun this process based on Commandant Gen. David H. Berger's *Force Design 2030* guidance to the force.⁴¹ To design a force more agile and tailored for potential Indo-Pacific conflicts, the Marines have begun divesting heavy armor and towed cannon artillery.⁴² The USAF suffers from multiple redundant, and in most cases outdated, platforms. The U-2 and RQ-4 perform very similar ISR missions, yet the service has been thwarted by Congress in its attempts to retire one of these fleets.

- b. Retirement of "Legacy" Platforms. Each service needs to evaluate its combat systems to determine those that, while still effective and valuable, would be unlikely to survive in an armed conflict with China or Russia. If these missions or capabilities of these systems can be executed by another system(s), then the service should retire that platform. Less survivable airborne ISR platforms, such as the MQ-9 Predator, are examples of non-survivable platforms that do not necessarily need to be eliminated but should be reduced in favor of more survivable platforms. Recapitalization of capabilities in favor of newer and more capable systems is critical in the development of the force of the future.
- c. Non-Interoperable Systems and Platforms. The force of the future must be networked together, so systems and platforms that cannot communicate and integrate with the rest of the joint and combined force will have limited utility. New weapons systems must be designed with open architecture and interoperability from the start. Those indispensable capabilities and platforms that cannot communicate or work with the rest of the force must be retrofitted with equipment to bring them into the greater networked structure.
- d. Labor-Intensive Data Management Processes. Numerous processes across the services rely on large numbers of personnel to manually input or export data or analyze incoming information. The DoD needs to take advantage of data aggregation tools and software, including AI/ML, to automate many of these processes, and reallocate the personnel to analyzing the data, or to another combat capability. C2 and ISR are mission areas that must embrace the advances of automated data management to reduce their labor-intensive processes.

4.4 SERVICE-SPECIFIC IMPLEMENTATION GUIDANCE

US Army Implementation



The 25th Infantry Division shows off its ability to project combat power forward in suppor of maneuver operations with an Air Assault demonstration during the Indian Army Vice Chief of Staff visit at Schofield Barracks, Hawaii, on October 20, 2020.

Current Efforts: The Army's three main priorities are people, readiness, and modernization. The Army is rapidly transforming to meet these priorities and provide the joint force with the range, speed, and convergence of cutting-edge technologies that will be needed to provide future decision dominance and overmatch required to win the next fight. The Army measures strategic readiness by how rapidly the service can deploy forces in support of combatant commanders. Currently, the Army has approximately 170,000 soldiers deployed to 140 countries. The Army is committed to maintaining its FY22 proposed end strength of 485,000 soldiers to help it meet the demands of the combatant commanders.

Problems and/or Gaps: The Army must continue to modernize its 1980s era combat systems, the so-called "Big 5," including the M1 Abrams Main Battle Tank, the M2 Bradley infantry fighting vehicle, the AH-64 Apache attack helicopter, the UH-60 medium-lift utility helicopter, and the MIM-104 Patriot air defense system, which are beyond their original service life spans and have lost their comparative advantage over similar systems in China and Russia.

Investments

- Modernization Priorities. The Army must focus on long-range precision fires, the next-generation combat vehicle, the future vertical lift platform, networked systems, advanced air and missile defense, and enhanced soldier lethality.
- 31+4 Signature Modernization Efforts. The Army must invest in the thirty-one signature
 systems falling within the above priorities, plus the four developmental capabilities programs: Long-Range Hypersonic Weapons; Directed Energy Maneuver Short-Range Air
 Defense System; Indirect Fire Protection Capability-High Energy Laser and High-Powered Microwave; and the mid-range missile program. The aimpoint for full Army modernization is 2035, with 2028 as the waypoint, when the Army will comprehensively
 reassess its assumptions and adjust investments.
- Enhanced Security Force Assistance Command (SFAC) Capability. The Army is providing
 each combatant commander access to a specialized Security Force Assistance Brigade
 (SFAB), which is focused on their region, to help them build ally and partner capacity.

Divestments

The Army has cancelled seven programs and realigned resources from thirty-seven programs to pay for the modernization programs in the FY22 budget request, continuing the cuts and realignments since FY18 designed to fund its modernization efforts. The Army must continue to make tough choices to ensure the survival of its vital modernization programs.

US Navy Implementation



Sailors aboard the Arleigh Burke-class guided-missile destroyer USS Donald Cook (DDG 75) participate in a fresh water wash down on the forecastle.

Current Efforts: The Navy is focused on delivering the *Columbia*-class ballistic missile submarine on time (2027), incorporating uncrewed systems into the fleet, maintaining and expanding the United States' undersea advantage, and fielding the platforms necessary for Distributed Maritime Operations.

Problems and/or Gaps: After twenty years of near continuous carrier deployments to the Arabian Gulf, the Navy is struggling to meet readiness requirements. Deferred maintenance is no longer an option and requires attention or the service will risk not having vital resources available when they are needed.

Investments

- Smaller Carriers. The Navy must invest in smaller, lighter, and more maneuverable carriers to begin transitioning to operate as a hub for uncrewed vehicles across all domains.
- Naval Operational Architecture (NOA). NOA is the Navy's support to JADC2 and is
 paramount for fighting jointly across all domains; while NOA and Task Force Overmatch
 focus on communications and data flow, additional development is needed for commander decision aids, delegation of authorities, and integration of allies.
- Persistent Peacetime Targeting. Where adversaries rely on a fait accompli, maintaining track on targets and shared responsibilities of weapons engagement can shorten the force employment window and create faster effects.
- Enhanced Maintenance. Maintenance deferments and shortfalls are making it more
 difficult to get units ready for deployment and directly impacts readiness. Significant
 investment is needed to meet standards.

Divestments

- Littoral Combat Ship (LCS). The promise of this ship suffered at the hands of bureaucracy, cost-prohibitive technology, and operational limitations due to design forcing changes to its mission making it unable to meet its original intent.
- Global Command and Control System. This system has passed its usefulness. While the
 capability it brings is still a requirement, the system in its current state does not meet
 information requirements going forward. This system should be replaced under Task
 Force Overmatch and fully integrated into JADC2.

US Marine Corps Implementation



Marines and Sailors with the Maritime Raid Force, 11th Marine Expeditionary Unit, ride in a rigid-hull inflatable boat during a visit, board, search and seizure exercise.

Current Efforts: Through *Force Design 2030*, General Berger has redirected the USMC mission focus from countering violent extremists in the CENTCOM Area of Responsibility (AOR) to strategic competition, with special emphasis on the Indo-Pacific. *Force Design 2030* returns the USMC to its historic role as a naval force closely integrated with the navy. This profound shift in missions, from inland to littoral, and from VEOs to peer competitors, requires substantial adjustments in how the USMC organizes, trains, and equips in order to support Distributed Maritime Operations (DMO), Expeditionary Advanced Base Operations (EABO), and Littoral Operations in a Contested Environment (LOCE).

Problems and/or Gaps: The USMC's design is optimized for large-scale amphibious forcible entry and sustained operations ashore. Current leadership assessment is that the USMC is not organized, trained, equipped, or postured to meet the demands of the rapidly evolving future operating environment. It has gaps in expeditionary long-range precision fires; medium- to long-range air defense systems; short-range (point defense) air defense systems; high-endurance, long-range unmanned systems with long-range unmanned systems with ISR, Electronic Warfare (EW), and lethal strike capabilities; and disruptive and less lethal capabilities appropriate for countering malign activity by actors pursuing maritime "gray-zone" strategies.

Investments

- Next Generation of Fires Systems. The USMC needs to invest in future fires capabilities, including long-range precision fires and the Ground-Based Anti-Ship Missile.
- Modern Aviation Capabilities. The USMC must also invest in advanced airborne
 capabilities, including the F-35B fifth generation fighters and Group 5 (MQ-9 class longrange, long-endurance) unmanned aircraft systems (UAS).
- Digital Interoperability. The battlefield of the future will be data-centric and networked.
 In order for the USMC to seamlessly integrate into the joint all-domain force of the future, the service must invest in building and retrofitting networks, systems, and platforms with digital interoperability with joint and coalition systems.
- Readiness. The USMC must ensure resources are allocated to maintain service readiness in both platforms and forces.

Divestments

- Legacy and Redundant Capabilities. The USMC has begun the process of divesting legacy
 combat platforms such as tanks and towed cannon artillery that are also found in the Army.
 These divestments and other adjustments in Force Design are focused on enhancing agility
 and rapid response of forward deployed units in potentially dispersed environments
- Short-Range, Low-Endurance UAS Incapable of Employing Lethal Effects. The USMC must recapitalize its UAS fleet with a focus on longer-endurance and lethal UAS.
- Force Structure. The USMC must restructure to increase agility and enhance readiness to fight and win in projected future conflict.

US Air Force Implementation



Two F-35 Lightning IIs bank after receiving fuel over the Midwest on September 19, 2019.

Current Efforts: General Charles Brown, Chief of Staff of the Air Force, has aggressively promoted the mantra "accelerate change or lose," which is pushing the service to rapidly modernize to meet the challenges of future conflict. The USAF is the DoD's executive agent for JADC2, and the Department of the Air Force (DAF) has published a doctrine document, *Department of the Air Force Role in Joint All-Domain Operations (JADO)*. Secretary of the Air Force Frank Kendall has pushed the DAF to focus on China as the United States' pacing threat and has also discussed the need for Congress to work with the DAF to retire legacy platforms and allow the service to invest in capabilities needed to ensure the DAF provides the joint force with resilient, secure, and high-speed JADC2.

Problems and/or Gaps: The USAF's readiness continues to erode, in large part because of its aging fleet of aircraft; the average age of the USAF's aircraft is twenty-eight years. The USAF has struggled to recapitalize its fleet in large part because Congress has been unwilling to allow the service to retire legacy aircraft.

Investments

- Nuclear Weapon Delivery Modernization: The USAF should invest in the rapid recapitalization of the service's nuclear delivery systems, including the B-21 and the Ground-Based Strategic Deterrent (GBSD).
- Next-Generation ISR Capabilities: The USAF should invest in persistent, penetrating ISR platforms that have enhanced survivability against modern threat systems.
- Data Processing Systems and Software: The USAF should invest heavily in data science, including aggregation, correlation, and fusion tools (including AI/ML tools and algorithms).
- Advanced Battle Management System (ABMS): The USAF should invest heavily in the high-capacity, secure, multi-domain networks and systems that constitute the ABMS architecture.
- Autonomous Combat Platforms: The USAF should invest in large numbers of autonomous combat platforms, with special emphasis on human-machine teaming (such as the "loyal wingman" concept), and attritable, low-cost systems (such as "drone swarms").

Divestments

- Legacy Aircraft Fleets: The USAF should work with Congress to identify legacy aircraft fleets that should be retired to reinvest in modern capabilities and systems.
- Manpower-Intensive C2/ISR Processes. The USAF should leverage efficiencies gained by data aggregation, correlation, and fusion; tools, including AI/ML, to significantly reduce manpower-intensive processes such as ISR processing and exploitation; and C2.

US Space Force Implementation



Space and Missile Systems Center's WGS-10 (Wideband Global SATCOM) encapsulated satellite, securely mated with a Delta IV launch vehicle, was scheduled for a March 15, 2019 Launch at Cape Canaveral Air Force Station, along Florida's Space Coast.

Current Efforts: The United States Space Force (USSF) has been sprinting since its establishment on December 20, 2019, setting up force structure, bases, and establishing a "spaceminded" culture. The USSF has been working to convince national policy makers and warfighters that space is an increasingly contested environment, a position made even clearer by the Russian anti-satellite test in November 2021. The USSF has operationally focused on enhancing the capabilities and resilience of its space-based assets and ground-based architecture, with the purpose of deterring conflict in space and preparing to survive and win should an adversary attack US space systems.

Problems and/or Gaps: The United States and its allies remain committed to the peaceful use of space, but the United States' strategic competitors do not appear to agree with the benign use of space. The USSF must balance the competing priorities and requirements of building resilient space systems and architecture, while simultaneously building and codifying the administrative backbone associated with establishing a new military service.

Investments

- Space-Based Ground Moving Target Indicator (GMTI). The USSF must rapidly operationally deploy a space-based GMTI capability to allow the USAF to retire its antiquated airborne GMTI fleet.
- Satellite Backbone for JADC2 and ABMS. The USSF must invest in high-capacity, resilient, and secure satellite architecture to support the DAF's JADC2 and ABMS efforts.
- Satellite Constellation Recapitalization. The USSF should leverage the declining cost of space launch to recapitalize and significantly expand its constellations of precision navigation and timing (PNT), ISR, satellite communications (SATCOM), forecasting weather, and missile warning satellites.

Divestments Outdated and Vulnerable Legacy Satellites. The USSF must decommission satellites that are beyond their service life in favor of the recapitalization of its PNT, ISR, SATCOM, weather, and missile warning constellations.

4.5 ASSESSMENT OF THE NEXT NDS

Every strategy should be assessed regularly to evaluate its effectiveness and recommend modifications based on changing strategic and operational environments, and the efficacy of the strategy. This paper recommends that the DoD regularly assess the next NDS, evaluating its success in reaching the national security goals outlined not only within the next NDS, but the overall goals established by President Biden in the *Interim National Security Strategic Guidance*, and eventually the next NSS. The results of this assessment should be briefed to senior departmental and service leaders, as well as made available to Congress. Assessment of the next NDS should not wait until the preparation for the 2026 NDS; valuable competition time could be wasted, and the United States' relative security position could be further eroded.

4.6 RECOMMENDATIONS

Seizing the Advantage recommends fundamental changes to the DoD's processes, operational concepts, force posture, and capabilities investments and divestments.

Seizing the Advantage RecommendationsPage 1 of 3

Overarching: The DoD should...

- Rebalance its force posture to reflect the global nature of strategic competition, accepting risk in the Central Command Area of Responsibility to move forces and capabilities to the Indo-Pacific and Europe
- Revitalize military cooperation and interoperability with its allies and partners as a means to enhance defense relationships, mitigate risk, and develop a combined deterrence construct
- Publish a releasable Combined Warfighting Concept that outlines the force requirements of future armed conflicts
- More meaningfully integrate allies and partners into all aspects of warfighting, from planning, through execution, and assessment, and ease restrictions on information and intelligence sharing with its closest allies
- Establish an NDS assessment process that regularly assesses the effectiveness of the strategy and recommends revisions as circumstances warrant

Hybrid Conflict: The DoD should...

- Develop a comprehensive strategy for competition across the continuum, including developing a range of kinetic and non-kinetic activities that both respond to Chinese and Russian government activities and proactively shape US activities in the gray zone, as well as a concept for deterrence in the gray zone
- Embrace hybrid conflict, including the publication of hybrid conflict doctrine
- Identify and execute organizational changes required for interagency integration for gray-zone activities, embracing the whole-of-government strategy to address grayzone threats

Seizing the Advantage RecommendationsPage 2 of 3

- Develop guiding principles for US hybrid conflict to provide parameters for action
- Work with the interagency to develop a whole-of-government hybrid conflict "toolkit" that outlines military, diplomatic, information, and economic tactics, techniques, and procedures that could be employed to shape the gray-zone environment and respond to attacks

Information Operations: The DoD should...

- Establish an organization within the Office of the Secretary of Defense responsible for tailoring the DoD's strategic messaging campaigns and aligning them with national strategic messaging
- Organize, train, and equip (a) unit(s) to rapidly counter defense-focused mis- and disinformation, particularly on social media

Integrated Deterrence: The DoD should...

- Publish doctrine that documents exactly what the concept is and what capabilities are integrated into the new concept of *Integrated Deterrence*
- Accelerate the robust recapitalization and modernization of the nuclear triad, and consider development of nuclear-armed hypersonic delivery vehicles
- Articulate a new construct for emerging strategic forces to sustain an effective deterrent into the 2030s, and replace the Nuclear Posture Review with a Strategic Deterrence Review that explores how nuclear and conventional strategic weapons complement each other^a
- Integrate non-kinetic "fires," such as offensive information campaigns and cyber operations, with traditional kinetic fires in a new concept of "mass" for the modern way of war

Force Posture: The DoD should...

- Designate the undersecretary of defense for policy as a global posture integrator, responsible for leading a department-wide effort to develop, apply, enforce, and review a global posture strategy against which specific posture change proposals can be regularly assessed
- Update the Unified Command Plan to shift toward a more globally oriented force, with C2 of in-theater forces still residing with their respective combatant commanders, but with the flexibility of other combatant commands to request and leverage out-of-theater forces more easily
- Adopt a balanced and differentiated force posture model in which: the naval component
 weight of effort should be on the Indo-Pacific; the land component weight of effort
 should be on Europe; space and cyber capabilities should be global; the Marine Corps
 should be postured to respond to crises around the world; and the Air Force should
 function as the "swing force," able to rapidly shift focus based on need

Orienting the Department toward Technological Superiority: The DoD should...

 Shift from a competition-by-differentiation to a competition-by-cost acquisition model, including by operationally deploying drone swarms and related technologies and more attritable systems that are cheaper and, in some scenarios, more effective^b

Seizing the Advantage RecommendationsPage 3 of 3

- Increase funding for the Small Business Innovation Research (SBIR) and Small Business
 Technological Transfer (STTR) programs to integrate small businesses into federal R&D
 and accelerate the pace of technological innovation^c
- Coordinate with allied and partner defense industrial bases to develop complementary military and dual-use capabilities rather than compelling them to buy or develop the same systems
- Bolster supply security with allies and partners by enhancing contact with foreign sources of supply, adapting existing contracts to incorporate greater domestic stockpiling and licensing as a hedge against potential disruptions, and explore extending security-of-supply arrangements to other countries like Japan, Taiwan, and Mexicod

Investments: The DoD should invest in...

- Recapitalization and modernization of the nuclear triad
- Enhanced ISR capabilities in all domains, including deployment of a small satellite constellation and low-observable ISR aircraft
- · Enhanced data aggregation, correlation, and fusion tools and algorithms
- Expanded space constellation and architecture, including persistent, resilient, and secure satellites and associated architecture for precision navigation and timing, ISR, communications, command and control, weather modelling, and missile warning
- Potential "game-changing" technologies, including AI and ML for data processing and analytics across a host of combat capabilities, and in quantum computers and quantum encryption, as well as quantum-resistant encryption for weapons systems and networks
- Next generation of survivable, penetrating, and very long-range weapons, including autonomous combat systems, hypersonic weapons, and directed energy weapons

Divestments: The DoD should divest from...

- Redundant combat capabilities and systems both within a single service and residing in multiple services and, unless there is an overriding operational requirement, these programs, capabilities, or systems should be combined or eliminated
- Legacy platforms that are not survivable against the pacing threat, China
- Non-interoperable systems and platforms in favor of open architecture, interoperable systems
 - a. For more on adapting to the emerging strategic forces balance, see Barry Pavel and Christian Trotti, "New Tech Will Erode Nuclear Deterrence. The US Must Adapt," *Defense One*, November 4, 2021, https://www.defenseone.com/ideas/2021/11/new-tech-will-erode-nuclear-deterrence-us-must-adapt/186634/
 - b. For more on competitive strategies, see Benjamin Jensen, John T. Watts, Christian Trotti, and Mark J. Massa, Competitive Strategy Insights from Wargames, Atlantic Council, September 28, 2020, https://www.atlanticcouncil.org/in-depth-research-reports/report/competitive-strategy-insights-fromwargames/.
 - c. For more on SBIR and STTR, see Christian Trotti and Julia Siegel, "Shop Small and Fast When it Comes to Defense," *Atlantic Council*, April 19, 2021, https://www.atlanticcouncil.org/content-series/100-ideasfor-the-first-100-days/90-shop-small-and-fast-when-it-comes-to-defense/.
 - d. For these and other recommendations on security of supply, see Hasik, *The Security of Defense Trade with Allies: Enhancing Contact, Contracts, and Control in Supply Chains.*



US Navy and Japan Maritime Self-Defense Force ships underway in formation at the conclusion of Exercise Keen Sword 15.

5. CONCLUSION

The 2018 NDS was successful in changing the strategic focus of the US defense enterprise and driving discussion and debate on "great-power competition." The next NDS needs to build on this foundation with specific goals, actions, and implementation guidance to lead the DoD and US allies and partners in a strategy to compete now, deter conflict, and build a force that can win a high-intensity armed conflict in the future. Seizing the Advantage provides a road map for how the next NDS can provide a plan of action for halting the erosion of the United States' security position. It embraces the theory that strategic competition is best viewed as a continuum, and the United States needs to be engaged across the entirety of the continuum. This strategy presents specific, achievable, and measurable national security goals and objectives. Most importantly, this strategy provides ideas for an actionable NDS that can help the United States improve defense leadership, its security position relative to China and Russia, its deterrence, and its ability to build the force required for the future.

Major Themes of Seizing the Advantage

- The DoD must be active in the so-called gray zone, engaging in hybrid conflict to combat malign actors now, deter further escalation, and improve its relative security position.
- The *Integrated Deterrence* concept must be refined and promoted; the new concept of deterrence must be cross-domain, whole-of-government, and whole-of-alliance.
- The DoD must recognize the strategic simultaneity challenge and rebalance its force
 posture. The DoD should focus its primary effort on China, followed by Russia. This
 posture will require accepting risk from Iran, North Korea, and VEOs. Meaningful
 engagement and reliance on allies and partners will be key to mitigating these risks.
- The Combined Warfighting Concept is how the United States and its allies and partners
 are likely to fight future conflicts. It provides a road map of where to make investments
 and divestments, and it acts as a guide for allies and partners as to how they will be
 meaningfully integrated into the force of the future.
- Tough fiscal choices must be made. The DoD simply cannot afford everything it wants
 and needs. These goals of strategic competition should drive the choices, with a focus
 on competing now, enhancing *Integrated Deterrence*, and building a force capable of
 dominating armed conflict with either strategic competitor now and in the future.

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