

# 2022

## ANNUAL REPORT

**CSBA**

Center for Strategic and Budgetary Assessments







## MESSAGE FROM THE CHAIR OF THE BOARD



Dear Friends of CSBA,

On behalf of the Board of Directors, I am pleased to introduce this report on the Center for Strategic and Budgetary Assessments (CSBA) work in 2022 and its future plans.

Over the past year, CSBA continued to pursue its founding mission to explore security issues and emerging geopolitical trends, with a focus on strategy, defense capabilities, and investment priorities. CSBA's researchers have provided U.S. and allied policymakers with in-depth analysis and actionable insights to help them understand and operate in a changing geostrategic environment. CSBA's leadership and staff continue to provide service to the nation through participation in advisory boards and Congressionally-mandated commissions and Congressional testimony. In 2022, the CSBA team continued to deliver fresh insights in all its areas of focus, holding workshops and seminar series to gain insight into a diverse range of issues, publishing in-depth studies, and developing new tools to assess defense spending.

2022 saw the world reminded starkly of the need for rigorous analysis of defense and security issues and clear-eyed preparation to deter future conflicts. CSBA's first publication of the year, *Deterrence and*

*Defense in the Baltic Region*, was a timely exploration of the defense needs of NATO and the Baltic states in the context of Russia's invasion of Ukraine. Presentation of the report saw the welcome return of in-person discussions, augmented by the streaming and videoconferencing that have allowed us to remain connected and reach new audiences over the past several years. The year continued with a steady stream of reports on a variety of defense and security-related topics, as well as workshops and discussions with policymakers and other experts to explore and contextualize emerging issues. Reflecting the reality of the current great power competition and the need to address the full set of challenges it presents, CSBA's work in 2022 dealt with issues ranging from Chinese military modernization to post-INF missile strategy and the U.S. defense budget. CSBA continued its well-received educational programs engaging congressional staff and defense journalists, providing them the opportunity to learn from experts and deepen their understanding of technical and policy issues. We also welcomed a number of new resident and non-resident staff members who continue to enhance CSBA's research capabilities and operational efficiency.

This year, we welcomed former U.S. Indo-Pacific Command Commander Admiral Philip Davidson, USN (Ret.) as the newest member of CSBA's Board of Directors. We are thrilled that Phil has chosen to join us and devote his considerable strategic acumen, technical expertise, and managerial experience to supporting CSBA. Having served recently as head of the largest U.S. combatant command, which is both on the frontline of strategic competition with China and responsible

for ensuring security in a vast swath of the global commons, Admiral Davidson is keenly aware of the full range of challenges facing the U.S. and its allies. His engagement with CSBA and its work will help maintain the outstanding quality of the team's research as well as further improve its utility to policymakers and the armed forces. In 2023, CSBA will continue this momentum and produce new work on Chinese warfighting, innovation for great power competition, attritable aircraft, space architecture, and much more.

CSBA's work to inform current and future U.S. and allied strategic thinking would not be possible without the generous support of our sponsors, donors, and global audience. Your sponsorship allows the team to conduct its research and communicate its findings effectively. I would ask that you continue to engage with CSBA and its work throughout the coming year, whether on social media, by attending in-person and virtual events, or by reading our published reports and briefings. Furthermore, please consider making a financial contribution to help facilitate CSBA's research and education outreach via the "support" link on our web page. We greatly appreciate that assistance, and I am certain that CSBA and its work will continue to warrant your attention and engagement moving forward.

Sincerely,

**BARBARA HUMPTON**  
Chair, Board of Directors  
Center for Strategic and  
Budgetary Assessments  
March 2023



It is my pleasure to introduce this year's Annual Report by highlighting CSBA's accomplishments in 2022 and offering a preview of our work in 2023.

This past year, CSBA conducted a wide range of analytical studies to inform the United States Department of Defense, the uniformed services, and several defense agencies. A combination of in-person, virtual, and hybrid events allowed us to engage various audiences on topics of interest at home and abroad. Our work with close allies of the United States continued to expand, as did our contact with new sponsors. We also expanded and enriched our talent base of scholars and policy practitioners to further enhance the quality and applicability of our work. Continued outreach from both the Executive and Legislative branches of the U.S. Government and allies ensures that we continue to make substantive contributions to thinking and policymaking on global security issues.

In 2022, the CSBA team produced half a dozen public reports on an array of topics, including a major two-part study on post-INF Treaty missile strategy, an assessment of and recommendations regarding U.S. Pacific air posture, and an analysis of deterrence and defense in the Baltic region. We also completed work the first version of the China Strategic Choices Tool that assesses the actual costs associated with acquisition and operation of various Chinese military force elements and published a report documenting the tool. Our work on the U.S. defense budget continued with a report that explored the implications of high inflation on long-term purchasing power and the different meanings of the term "real growth."

The pace of workshops, wargames, and seminars also increased.

We continued to engage with the uniformed services and outside experts on issues such as warfighting concepts and force planning. Our work with officials from closely allied governments also proceeded, as we sought to deepen our shared understanding of their strategies, alliance dynamics, and joint operations thinking. As part of our public education work, we welcomed two classes of Defense Journalism Seminar Series Fellows, providing them the opportunity to engage directly with subject matter experts and further their understanding of defense issues. We are presently conducting our Congressional Defense Seminar Series, engaging staff members from both houses, to help them sharpen their thinking on defense and security matters. Last summer, we had the pleasure of hosting the 2022 class of Secretary of Defense Executive Fellows for a week of discussions on topics ranging from U.S. grand strategy to private sector workplace dynamics. We look forward to continuing all of these programs in the coming year.

The past year has also seen the CSBA team continue to expand and evolve. Captain Thane Clare (USN, Ret.) joined us as a Senior Fellow, and we are already benefiting from his expertise in multiple areas, including the nexus between operational planning and defense acquisition. Whitney McNamara returned to CSBA as a Non-Resident Senior Fellow focusing on technology issues in national security and defense. Dr. Sameer Lalwani also joined us as a Non-Resident Senior Fellow, bringing with him a broad array of expertise, including on nuclear deterrence and Indo-Pacific security. We have also been pleased to host outstanding officers from the Japanese Self-Defense Forces—Lieutenant Commander Hiroki Tanaka, JMSDF, and Lieutenant Colonel Masano



Hashizume, JASDF—as Visiting Fellows in our cooperative program with the Japanese Ministry of Defense. On the research side of the organization, Timothy Sadow joined us as a Research Assistant, and on the operations side, Michael Thadani now serves as our Development and Communications Coordinator.

As proud as we are of the work we have done in the past year, CSBA has always been a forward-looking organization seeking to address emerging problems and answer questions about the future of defense and security. In 2023, we will continue to develop new strategic and operational concepts, explore new ideas about defense planning and acquisition, work with close allies to help them confront a constantly evolving security environment, and prepare the next generation of professionals to pursue and defend American interests around the world.

As always, thank you for supporting CSBA. The interest you have shown in us and our work is essential to our continuing success. Please enjoy this report, and do not hesitate to reach out with your ideas and comments.

Sincerely,

**THOMAS G. MAHNKEN, Ph.D**  
President and Chief Executive Officer  
Center for Strategic and  
Budgetary Assessments  
March 2022





# THE FUTURE OF NATIONAL SECURITY

The Center for Strategic and Budgetary Assessments (CSBA) is an independent, non-partisan, non-profit public policy research institute established to promote innovative thinking and debate about national security strategy, defense planning, and military investment options for the 21st century.

For nearly three decades, CSBA has provided consistent, high-quality, and innovative research on defense strategy, budgets, and the security environment. With notable alumni, CSBA experts have worked to analyze U.S. defense strategy, force structure, and planning, and defense budgets in the effort to reconcile these interrelated subjects, contributing extensively to the Revolution in Military Affairs debate, the development of an AirSea battle concept, discussions on the strategic choices necessary for the transformation and modernization of the U.S. military in the face of limited resources, and the defense strategy and operational concepts needed for an era marked by rapid technological change, new ways to operationalize capabilities, and acute peer-level challenges to the U.S.-led liberal international order.

Under the leadership of Dr. Thomas G. Mahnken since 2016, CSBA remains instrumental in guiding the nation's most critical defense policy debates as a small but powerful group comprising experts with extensive experience in the field of national security—many of them military veterans and former senior-level policymakers from the Department of Defense, State Department, and the National Security Council—supported by a dedicated staff of accomplished executives and scholars.

CSBA's mission is to develop innovative, resource-informed defense concepts, promote public debate, and spur action to advance U.S. and allied interests. Our vision is to set the terms of debate for the future of national defense and drive change in concept development, force structure, and resources to prepare the United States and its allies to compete and win in an era characterized by great power competition and conflict.

CSBA enjoys a highly-regarded reputation cemented in its values that ensures the entire team achieves its mission and lives its vision of Independence, Objectivity, Integrity, Innovation, Expertise, and Quality.

## Research Methodology

### ANALYTIC STUDIES

CSBA’s analytic studies look 20–30 years into the future and are informed by history. They frame security developments in a broader context of strategic competition and identify critical areas of competition, particularly with regards to technological development, as well as the competitive advantages and disadvantages of the United States and potential adversaries. They take into account bureaucratic considerations and their influence on policy.

### OPERATIONAL CONCEPT DEVELOPMENT

CSBA’s operational concepts link strategies and capabilities to achieve strategic objectives and inform requisite future capability investments. They consider future technological and political developments and explore the utility of elements of the program of record, including potential additions, enhancements, or necessary alterations. Promising operational concepts may be validated by wargaming.

### WARGAMING & SCENARIO DEVELOPMENT

CSBA employs an “alternate futures” scenario development methodology. We believe that the future cannot be predicted, but also that scenarios can be used to think through various potential challenges. Our scenario development has been successfully employed by a variety of U.S. and allied government sponsors. CSBA’s wargaming methodology is designed to elicit the insights of a well-informed community of subject-matter experts on important, evolving



issues, not to generate predetermined outcomes. CSBA wargames are intended to question prevailing assumptions underlying current and potential U.S. military concepts of operations, discover essential U.S. and adversary capabilities, identify capability and capacity shortfalls, and highlight potential areas of strategic advantage or disadvantage.

### WORKSHOPS AND SEMINARS

CSBA workshops and seminars expose participants to new issues and concepts. They explore different approaches to thinking about strategic challenges designed to elicit non-obvious ideas and insights and provide a forum for discussion. They are also a way to critically review ideas and concepts in development.

### BUDGETARY ANALYSIS

CSBA provides trusted insight on current defense spending and resource allocation, acquisition issues and reform, extraordinary funding for ongoing military operations, Department of Defense efficiency initiatives, historical spending trends, and future defense spending levels.

### STRATEGIC CHOICES EXERCISES

CSBA examines the defense capability tradespace within multiple possible budget scenarios to identify the relationship between strategy and investments, including areas of over- and under-investment. The Strategic Choices Exercise is used for both futures games and to educate the public as to the contents of the Defense Program of Record.

### SPECIAL PROJECTS

CSBA is a flexible organization with a broad base of expertise, well suited to conduct or participate in a variety of activities, ranging from executive-level policy briefings, on-line reviews of recent research in the field of international relations, congressionally-mandated studies, and consultative analysis for allied and partner governments. Members of our professional staff, many of whom hold university faculty positions, also appear frequently before Congress and the national media.











# STRATEGIC FORESIGHT AND DEFENSE PLANNING IN THE 21<sup>ST</sup> CENTURY

In 2022, CSBA's research focused on the following themes and topics:

## **SHAPING FUTURE STRATEGIC PLANNING**

Analyzes emerging opportunities and challenges in the wake of Russia's invasion of Ukraine, as well as a growing concern over a potential conflict with China over Taiwan and other flashpoints in the Western Pacific. This research focus includes analysis of current innovation efforts as well as the risks posed by blind spots in force structure and modernization gaps and potential solutions.

## **ASSESSING DETERRENCE IN THE CONTEXT OF GREAT POWER COMPETITION**

Explores capabilities within NATO and in the Indo-Pacific for conventional and nuclear deterrence. Studies included deterrence in the Baltic Region in light of Russia's invasion of Ukraine, a historical analysis of U.S. agreements with Indo-Pacific partners and allies during the Cold War, and a new framework for intermediate-range missiles and intermediate-range nuclear forces (INF) deterrence following the end of the INF treaty.

## **BUDGETARY CONSIDERATIONS AND FISCAL PLANNING**

Assesses defense spending requests and outlays in both nominal and real terms based on current trends and historical data. In addition to the 37<sup>th</sup> annual budget analysis from CSBA, this area articulates tradeoffs that the services and Defense Department face as a whole and what role Congressional deliberations play in the process.

## **PUBLIC AND PROFESSIONAL EDUCATION**

Includes outreach campaigns on emerging strategies, new concepts and military technologies, and budget analyses to educate, train, and inform national security decision-makers, including rising leaders in policymaking and journalism.

# CSBA'S 2022 PUBLICATIONS



## Deterrence and Defense in the Baltic Region: New Realities

Jan Van Tol, Chris Bassler, Katherine Kjellström Elgin, Tyler Hacker

*Deterrence and Defense in the Baltic Region* examines security requirements for the Baltic States and NATO in the context of Russia's 2022 invasion of Ukraine. The war has provided an opportunity to understand the implications for NATO's eastern flank stemming from Russia's demonstrated willingness to use large-scale military force against another European nation, reassess pre-war assumptions concerning putative Russian military effectiveness, and to draw preliminary observations about Russian and Ukrainian combat performance. These observations help inform analysis about major aspects of defense of the Baltic region, with an emphasis on the key roles of precision-guided weapons. The authors conclude with a series of recommendations for the Baltic States, for NATO, and for the United States to enhance deterrence, defense, and security cooperation in Eastern Europe, with emphasis on the Baltic region.



## China's Choices: A New Tool for Assessing the PLA's Modernization

Jack Bianchi, Madison Creery, Harrison Schramm, Toshi Yoshihara

All militaries confront resource tradeoffs. As China and the United States enter a period of intensifying military competition, understanding the tradeoffs the two must face and their likely consequences will become ever more important. Yet, without a better understanding of China's own resourcing constraints and associated vulnerabilities, policy-makers lack the critical insights to holistically assess the state of the competition and develop effective strategies.

To advance the policy community's understanding of China's budgetary choices, relative tradeoffs, and constraints on military modernization, the Center for Strategic and Budgetary Assessments (CSBA) created a one-of-a-kind model for exploring Beijing's defense portfolio. The China Strategic Choices Tool (SCT) is a user-friendly, web-based application that allows participants to step into the shoes of Chinese statesmen and defense planners to make high-level resourcing and force structure decisions regarding the future of China's military. By simulating investments in and divestments from a broad portfolio of PLA capabilities, the tool allows users to generate alternative future force structures within a budgetary constraint.

In *China's Choices*, authors Jack Bianchi, Madison Creery, Harrison Schramm, and Toshi Yoshihara introduce the China SCT and the rigorous methodology that informs its functions. More broadly, the report illustrates how analysts can use relative cost estimates—as opposed to absolute cost estimates—to overcome Beijing's opacity on defense spending, evaluate China's defense modernization tradeoffs, and advance the development of Allied competitive strategies against a resource-constrained Beijing.

## How I Learned To Start Worrying And Hate Real Growth: Analysis of the 2023 Defense Budget Request

Travis Sharp

In May 2022, the Pentagon presented its second budget request to the Biden Administration, proposing a \$773 billion topline for Fiscal Year 2023. Although estimates of nominal and real growth have varied based on this figure, the question of inflation's impact on the defense budget looms large. Congress recognizes that accepting the Administration's request as-is would lead to slim pickings when it comes to funding the DoD's priorities, but the question remains whether to approve a large increase to avoid a purchasing power gap or to continue the trend of minor budgetary increases.

In *How I Learned to Start Worrying and Hate Real Growth*, CSBA Fellow and Director of Defense Budget Studies Travis Sharp analyzes the FY 2023 Defense Department Budget Request, especially in light of the central inflation question. Sharp examines not only current and historical defense spending trends, but also how the DoD has conducted its budgetary predictions dating back to Fiscal Year 1977. He finds that predicting based on real growth alone would lead to significant fluctuations in the DoD's purchasing power, amounting to differences of tens of billions of dollars. Instead, Sharp proposes a series of models based upon the outlook for inflation that would better serve to inform the upcoming fiscal year's budget and avoid fights in the budgetary war room.

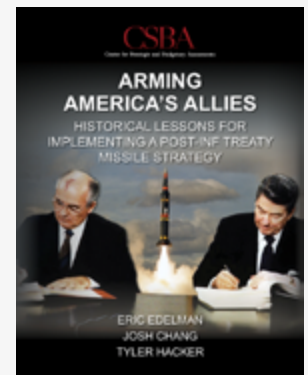
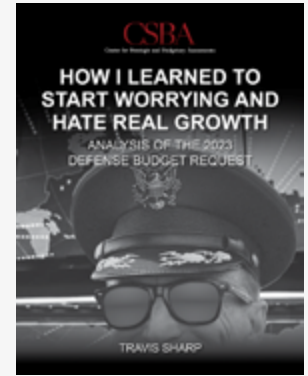
This report is the 37th in a series of annual budget analyses published by CSBA and its predecessor organization.

## Arming America's Allies: Historical Lessons for Implementing a Post-INF Treaty Missile Strategy

Eric Edelman, Josh Chang, Tyler Hacker

In the aftermath of the U.S. withdrawal from the Intermediate-Range Nuclear Forces (INF) Treaty in 2019, then-Secretary of Defense Mark Esper indicated that he believed it would be useful to deploy conventional intermediate-range ballistic missiles in the Indo-Pacific region. But it is not yet clear that allied or partner governments in either this region or in Europe would be willing to host such capabilities on their territory.

In *Arming America's Allies*, Eric Edelman, Josh Chang, and Tyler Hacker revisit episodes from the Cold War, including the Korean War and Euromissile Crisis, to posit what role INF missiles could play in U.S. alliances and partnerships in this new era in both Europe and the Indo-Pacific. Although NATO's relationship with "the nuclear umbrella" is commonly discussed, the authors note that it "was not born a nuclear alliance but became one in the wake of multiple strategic shocks." The story is similar for the United States in the Indo-Pacific; the Korean War, the 1958 Taiwan crisis, and decolonization in Indochina all rapidly affected the strategic landscape. Nor were these nuclear agreements free of complexities both domestically and abroad. The authors conclude that the controversies surrounding missile deployments abroad during the Cold War closely resemble the controversies of today, and as such, there are key diplomatic and strategic lessons for the United States to draw as it develops a new deterrent posture.







## Rings of Fire: A Conventional Missile Strategy for a Post-INF Treaty World

Eric Edelman, Chris Bassler, Toshi Yoshihara, Tyler Hacker

Since its withdrawal from the Intermediate-Range Nuclear Forces (INF) Treaty in 2019, the United States has been free to develop new medium and intermediate-range conventional missiles to strengthen its conventional deterrence posture. The military services have tested and fielded a variety of systems that could bolster their long-range strike capabilities and proposed still others. To date, however, Washington lacks a clear path for how the various service initiatives might contribute collectively to a broader precision-strike complex.

Following the U.S. withdrawal from the INF Treaty, many studies have discussed what sorts of conventional missiles the United States might now include in its portfolio. In *Rings of Fire: A Conventional Missile Strategy for a Post-INF Treaty World*, authors Eric Edelman, Chris Bassler, Toshi Yoshihara, and Tyler Hacker instead discuss how the United States will incorporate intermediate-range conventional missiles into its deterrence posture, and which allies and partners are closely linked to this strategy. With an eye toward the Indo-Pacific in the near term and Europe farther off, the authors propose an analytical framework based on the different ranges of U.S. and adversary missile capabilities, the geostrategic landscape, and the asymmetries in platforms and geography. From this framework, *Rings of Fire* then compares the current array of U.S. and allied assets in both regions with proposed capabilities to formulate a new missile strategy. The study concludes with an examination of multiple independent reentry vehicles (MIRVs) and maneuverable reentry vehicles (MARVs) within a conventional missile strategy and their respective utility in both theaters.



## Moving Pieces: Near-Term Changes to Pacific Air Posture

Carl Rehberg, Josh Chang

The threat to U.S. and allied air facilities in the Indo-Pacific region is increasing. Current air force posture is vulnerable to adversary first strike due to insufficient posture resiliency—the ability of deployed forces to survive, operate, and regenerate under adversary attack. The recently announced decision to replace the permanent F-15C Eagle squadrons at Kadena Air Base with a rotational deployment only reduces the effectiveness of U.S. Indo-Pacific air forces in the event of a conflict. Defense planning in recent years has outlined recommendations to improve the defense of both facilities and others in the region, but these recommendations have only been partially implemented at best.

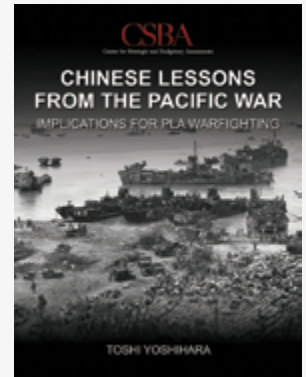
In *Moving Pieces: Near-Term Changes to Pacific Air Posture*, authors Carl Rehberg and Josh Chang propose a new framework for air posture resiliency in the Indo-Pacific theater. Rehberg and Chang use Okinawa and Guam as case studies for this new framework, analyzing recent plans and implemented changes to posture on both islands and their current force posture. They then recommend a series of options the U.S. can implement by 2030. Although posture resiliency must constitute the right mix of passive and active defenses, it also requires more emphasis on an understudied element to enhance the survivability of force posture in U.S. Indo-Pacific Command: force structure capabilities for counterstrike. Force posture and posture resiliency call for bold leadership from DoD et al. to implement and accelerate meaningful options now and in the near term to enhance crisis and structural stability. These options will assure U.S. allies and partners, deter adversaries, focus on operational plan execution, and improve warfighting effectiveness. The time to act is now.

## Chinese Lessons From the Pacific War: Implications for PLA Warfighting

Toshi Yoshihara

Senior Fellow Toshi Yoshihara surveys Chinese histories of the Pacific War to discern lessons that mainland analysts have drawn from the ocean-spanning struggle. He examines the extensive Chinese-language literature on the great battles at Midway, Guadalcanal, and Okinawa and pinpoints the operational insights that Chinese strategists have gleaned from them. The selected campaigns involved warfighting that will feature prominently in a future Sino-American conflict: carrier air warfare, contested amphibious landings, expeditionary logistics, and electronic warfare.

Yoshihara finds that Chinese analysts, including those affiliated with the People's Liberation Army (PLA), have scrutinized the Pacific War. Their historical accounts of the war at sea explicitly draw lessons for the future of Chinese warfighting, including warfare in the information age, modern amphibious operations, land-based maritime strike, and expeditionary logistics. Yoshihara uncovers in these analyses tantalizing hints of the PLA's deeply held beliefs about warfare, and of the PLA's enduring weaknesses that it is seeking to reverse. By looking at the Pacific War through Chinese eyes, Yoshihara argues, the policy community can better appraise Beijing's evolving views of potential great power wars in the Indo-Pacific.



## Innovating for Great Power Competition: An Examination of Service and Joint Innovation Efforts

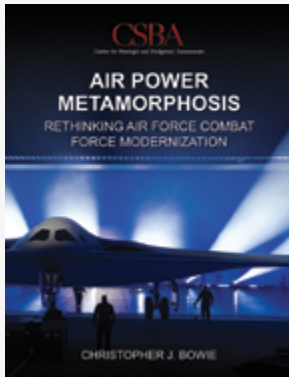
Thomas G. Mahnken, Evan B. Montgomery, Tyler Hacker

Following nearly two decades of counterinsurgency in the Greater Middle East, the United States Department of Defense finds itself looking to the Cold War for lessons on how to adapt to the operational challenges presented by China and Russia. To modernize its platforms, doctrine, and force structure to compete with and defeat 21st-century great power competitors, the military services and the Department of Defense as a whole are seeking to promote conceptual, organizational, and technological innovation within the U.S. armed forces.

In *Innovating for Great Power Competition*, authors Thomas G. Mahnken, Evan B. Montgomery, and Tyler Hacker reflect upon the lessons from Cold War era innovation. They find that several factors play a crucial role in innovation, including recognition of the threat environment, senior-leader sponsorship and support, innovators and their advocates and networks, and organizational culture. Additionally, military innovation typically occurs in three stages: speculation, experimentation, and implementation. Should these elements of innovation be missing or insufficient, failure can occur in any of these three stages, as well as during employment on the battlefield. These ingredients and phases combine to yield a framework for diagnosing innovation in historic and contemporary military organizations. The authors then apply this framework to contemporary innovation efforts in both the individual military services and the Department of Defense as a whole. The study examines the relative success of these innovation efforts and suggests four possible outcomes based on the pace of service-level innovation efforts compared to defense-wide innovation efforts. Finally, the authors offer potential operating options for each outcome.







## Air Force Metamorphosis

Christopher J. Bowie

For the past three decades, Chinese leadership has closely studied the United States' power projection capabilities and concept of operations. Consequently, the People's Liberation Army (PLA) has tailored its anti-access/area denial approach and air defenses to prevent the United States from leveraging its current strengths. A short- or medium-range concept of air power is unlikely to be successful for power projection or deterrence in the Western Pacific, and a change in direction for the U.S. Air Force is likely necessary.

In *Air Power Metamorphosis: Rethinking Air Force Combat Force Modernization*, Dr. Christopher Bowie proposes a series of shifts to adapt to the changing geostrategic environment. He outlines how to reshape the Air Force over the next 15 years to increase its long-range power projection, even in a scenario where funding levels remain flat. Bowie suggests using the Air Force's newest aircraft, the B-21 stealth bomber, as the focus of power projection, explaining how the B-21 can fulfill a wide variety of missions and offering tradeoffs to increase B-21 production rates. He demonstrates that the plan carries risks, but historically, the Air Force has been able to mitigate those risks and make the most of its platforms. Bowie concludes with a potential path forward and what force structure attributes the Air Force would have in 15 years if it chooses this course of action.



## Mao's Army Goes to Sea

Toshi Yoshihara

From 1949 to 1950, the People's Liberation Army (PLA) made crucial decisions to establish a navy and secure China's periphery. The civil war had been fought with a peasant army, yet in order to capture key offshore islands from the Nationalist rival, Mao Zedong needed to develop maritime capabilities. *Mao's Army Goes to Sea* is a ground-breaking history of the founding of the Chinese navy and Communist China's earliest island-seizing campaigns.

In this definitive account of a little-known yet critical moment in China's naval history, Toshi Yoshihara shows that Chinese leaders refashioned the stratagems and tactics honed over decades of revolutionary struggle on land for nautical purposes. Despite significant challenges, the PLA ultimately scored important victories over its Nationalist foes as it captured offshore islands to secure its position.

Drawing extensively from newly available Chinese-language sources, this book reveals how the navy-building process, sea battles, and contested offshore landings had a lasting influence on the PLA. Even today, the institution's identity, strategy, doctrine, and structure are conditioned by these early experiences and myths. *Mao's Army Goes to Sea* will help US policymakers and scholars place China's recent maritime achievements in proper historical context – and provide insight into how its navy may act in the future.



Research Fellow Tyler Hacker presents the findings from the study *Rings of Fire: Conventional Strike Portfolio Options for a Post-INF Treaty World*.



Analyst Josh Chang chats with *Defense News*'s Stephen Losey at the Defense Journalism Seminar Series Happy Hour.





# STRATEGIC CHOICES

CSBA plays an essential role in sparking a more informed debate on defense budgeting and resourcing. CSBA's Budgetary Studies and Strategic Choices program provides an independent source of budgetary analysis to help those both in and out of government understand budgetary trends; the near-and long-term implications of prospective trade-offs; the second-order consequences of changes to the defense program; and how they fit within the overall context of U.S. defense policy and strategy.

## The U.S. Strategic Choices Tool and Strategic Choices Exercises

CSBA's Strategic Choices Tool (SCT), which has been in use for more than a decade, is continuously updated to address new realities, including a world post-COVID-19, and a strategic environment that sees the return of conventional warfare in the ongoing Russia-Ukraine war. These realities also promise new platforms and operations. The SCT is designed to illuminate challenges and foster a better understanding between the U.S. defense budget and building a force structure best suited for the years to come. It accomplishes this by asking users to conduct long-term defense planning, develop new operational concepts, assess alternative force structures and postures, identify areas for greater investment or divestment, and evaluate the division of labor between the United States and its allies.

The Strategic Choices Tool allows users to explore alternative defense investment priorities and develop strategies for future plans and programs, highlighting how these plans should differ from current ones. Driven by a user's view of current and future threats to national security and the best strategy for addressing them, users rebalance defense force structure and investments over two five-year moves that correspond to consecutive Future Year Defense Programs. The U.S. tool includes over 1,500 force structure and capability options across twelve areas, including air, sea, ground, manpower, readiness, and R&D.

In 2023, CSBA looks forward to further expanding its Strategic Choices Tool to include spending options for and exercises with U.S. allies, such as Japan, Finland, and Sweden.

## The China Strategic Choices Tool

To advance the policy community's understanding of China's budgetary choices, relative tradeoffs, and constraints on military modernization, in 2022 CSBA created a one-of-a-kind model for exploring Beijing's defense portfolio. The China Strategic Choices Tool (SCT) is a user-friendly, web-based application that allows participants to step into the shoes of Chinese statesmen and defense planners to make high-level resourcing and force structure decisions regarding the future of China's military. By simulating investments in and divestments from a broad portfolio of PLA capabilities, the tool allows users to generate alternative future force structures within a budgetary constraint. We look forward to applying the tool to a range of analytical tasks in coming months.







# PUBLIC AND PROFESSIONAL EDUCATION

CSBA seeks to educate the leaders of today and tomorrow on strategy, concepts, capabilities, and resources through a variety of public and professional education opportunities sponsored exclusively by CSBA or in conjunction with our academic and corporate sponsors.

## Engagement with U.S. Defense Leaders

In 2022, CSBA was proud to host leaders from the Department of Defense to discuss the future of defense strategy for the United States, along with leadership from our partners and allies around the globe.

In June, we hosted Estonian Ambassador Kristjan Prikk and Estonian Permanent Secretary of Defence Kusti Salm for the release of *Deterrence and Defense in the Baltic Region*. The event included remarks about Estonia’s security posture in light of Russia’s invasion of Ukraine and how NATO can prepare in the short term—the event was held just two weeks before the 2022 NATO Summit in Madrid—and plan for long term collective defense changes.

CSBA also held a series of roundtables with the Japanese National Institute for Defense Studies as well as with current and former Japanese Self-Defense Force leadership on current topics in the Western Pacific and continuing cooperation under the U.S.-Japan Mutual Defense Assistance Agreement. Additionally, CSBA hosted the second in a series of annual trilateral strategic dialogues on great-power competition involving American, Australian, and Japanese experts in Sydney, Australia.

CSBA was also able to host a variety of virtual, hybrid, and in-person educational events throughout 2022, including sessions with the Secretary of Defense Executive Fellows Program (SDEFP), George Washington University, the Georgia Institute of Technology, the Johns Hopkins University School of Advanced International Studies (SAIS), Princeton University, and the University of California – San Diego (UCSD).



In October 2019, CSBA inaugurated the Congressional Defense Seminar Series (CDSS), an in-depth bipartisan program for Congressional staff members designed to provide staffers with the tools to master the conceptual foundations of defense policy as well as the intricacies of contemporary national security processes.

Following the success of the program in previous years, CSBA welcomed its fourth cohort of CDSS fellows in February 2023 to better accommodate Congressional staffers' schedules around the legislative calendar. Featuring senior CSBA scholars and outside national security experts, the 2023 CDSS includes such topics as:

- Defense Strategy and the Threat Environment
- The People's Liberation Army: Chinese Military Power
- Nuclear Deterrence in the 21st Century;
- Defense Innovation and the Defense Industrial Base; and
- The Defense Budget: Policy, Process, and Stakeholders.

## Defense Journalism Seminar Series

Building on the success of the Congressional Defense Seminar Series, in November 2020, CSBA launched the Defense Journalism Seminar Series (DJSS), a new national security seminar aimed at journalists working the defense beat for both trade and general-interest media outlets. This program aims to bring together reporters and writers for a series of interactive seminars that illuminate the conceptual foundations of defense policy as well as the intricacies of contemporary national security processes. The series features senior CSBA leaders and advisors, independent national security experts, and veterans of defense journalism.

This year, the 2022 cohort was able to meet in-person for seminars as well as a happy hour and other informal engagements. In addition to offering deeply researched assessments of this subject matter, the CSBA Defense Journalism Seminar Series featured insights on the changing nature of defense news coverage and how to cover complex technological and geopolitical issues with credibility. CSBA provides an independent outlet for reporters to build relationships among sources and engage with subject matter experts on emerging trends.



## Dave McCurdy

### DEFENSE INVESTMENT AND INNOVATION INITIATIVE

a CSBA program



#### The Dave McCurdy Defense Investment and Innovation Initiative

In 2021, CSBA's longest-serving Director, Dave McCurdy, retired from the CSBA Board after 25 years of service. To recognize his many contributions to U.S. national security, CSBA established the Dave McCurdy Defense Investment & Innovation Initiative. Dave McCurdy served in the U.S. House of Representatives for nearly 15 years and was a leader on defense and intelligence issues. He served as the Chair of the House Intelligence Committee in 1991 and 1992 and was a co-sponsor of the landmark Nunn-McCurdy Amendment to the 1982 Defense Authorization Act, which transformed program management and cost analysis practices in the Department of Defense. He was a thoughtful overseer of CSBA programs and an enthusiastic participant in many projects and events during his tenure on the CSBA Board.

The McCurdy Initiative is designed to strengthen CSBA's established research agenda on strategy, concepts and capabilities, and resources and investments with a particular emphasis on the fiscal elements of defense. It would build on CSBA's existing budget analyses and tools while adding a new focus on enhancing the management of defense resources.

In 2022, CSBA launched several activities under the McCurdy Initiative, including public commentary and expanded applications of CSBA's Strategic Choices Tool. These activities included publications in *Defense One*, *Defense News*, and *Breaking Defense*, as well as CSBA's 37<sup>th</sup> annual defense budget analysis, *How I Learned to Start Worrying and Hate Real Growth*.

CSBA looks forward to expanding the McCurdy Initiative to include workshops on investment and innovation featuring CSBA experts and Council members, as well as to seek the establishment of a McCurdy Fellowship within CSBA to direct the Initiative's research.





# LOOKING FORWARD: CUTTING-EDGE STRATEGY FOR A NEW ERA OF WAR

In 2023, CSBA's research will focus on the following issue sets:

## **SHAPING FUTURE DEFENSE STRATEGY**

Assesses how emerging opportunities and threats affect the strategic landscape, potentially realigning priorities and providing for new approaches to international security. Includes analysis of future investments the United States and its allies can make in land, sea, and amphibious domains, as well as predicting and recommending options for the space domain to match U.S. competitors' plans and priorities.

## **STRATEGIC DETERRENCE FOR AN ERA OF MULTI-POLAR COMPETITION**

Explores key choices related to conventional and nuclear deterrence in an era where the United States faces two nuclear peers. Includes new technologies, strategies, and partnerships, as well as the costs of arms control and how the United States can impose costs on its adversaries.

## **MATCHING INVESTMENTS WITH DESIRED EFFECTS**

Identifies capabilities where the United States and its allies can gain and maintain a competitive advantage over their competitors. This area links current defense priorities with existing munitions and platforms, as well as targeting where future spending can minimize tradeoffs in the short run and maximize long-term effectiveness.

## **DIAGNOSING ADVERSARIES' STRATEGIC PERCEPTIONS**

Building upon the research displayed in 2021's *Seizing on Weakness*, this issue set analyzes Russian and Chinese strategists' lessons learned from historical competition as well as current analysis of their own strengths and weaknesses. This research seeks to provide insights not currently available in a dialogue largely shaped by Western perceptions of great power competition.









## Thomas Mahnken

### PRESIDENT AND CEO

Dr. Thomas G. Mahnken is a Senior Research Professor at the Philip Merrill Center for Strategic Studies at The Johns Hopkins University's Paul H. Nitze School of Advanced International Studies (SAIS) and has served for over 20 years as an officer in the U.S. Navy Reserve, to include tours in Iraq and Kosovo.

He currently serves as a member of the Congressionally-mandated National Defense Strategy Commission and as a member of the Board of Visitors of Marine Corps University. His previous government career includes service as Deputy Assistant Secretary of Defense for Policy Planning from 2006–2009, where he helped craft the 2006 Quadrennial Defense Review and 2008 National Defense Strategy. He served on the staff of the 2014 National Defense Panel, 2010 Quadrennial Defense Review Independent Panel, and the Commission on the Intelligence Capabilities of the United States Regarding Weapons of Mass Destruction. He served in the Defense Department's Office of Net Assessment and as a member of the Gulf War Air Power Survey. In 2009 he was awarded the Secretary of Defense Medal for Outstanding Public Service and in 2016 the Department of the Navy Superior Civilian Service Medal.

Dr. Mahnken is the author of *Strategy in Asia: The Past, Present, and Future of Regional Security* (Stanford University Press, 2014), *Competitive Strategies for the 21st Century: Theory, History, and Practice* (Stanford University Press, 2012), *Technology and the American Way of War Since 1945* (Columbia University Press, 2008), and *Uncovering Ways of War: U.S. Intelligence and Foreign Military Innovation, 1918–1941* (Cornell University Press, 2002), among other works.



## Eric Edelman

### COUNSELOR

Ambassador Eric S. Edelman retired as a career minister from the U.S. Foreign Service on May 1, 2009. He has served in senior positions at the Departments of State and Defense as well as the White House, where he led organizations providing analysis, strategy, policy development, security services, trade advocacy, public outreach, citizen services, and congressional relations. As undersecretary of defense for policy (August 2005–January 2009), he was DoD's senior policy official, overseeing strategy development with global responsibility for bilateral defense relations, war plans, special operations forces, homeland defense, missile defense, nuclear weapons, and arms control policies, counterproliferation, counternarcotics, counterterrorism, arms sales, and defense trade controls.

He served as U.S. ambassador to Finland in the Clinton administration and Turkey in the Bush administration and was Vice President Cheney's principal deputy assistant for national security affairs. He was chief of staff to Deputy Secretary of State Strobe Talbott, special assistant to Undersecretary of State for Political Affairs Robert Kimmitt, and special assistant to Secretary of State George Shultz.

His other assignments included the State Department Operations Center, Prague, Moscow, and Tel Aviv, where he was a member of the U.S. Middle East delegation to the West Bank/Gaza autonomy talks.

Ambassador Edelman has been awarded the Department of Defense Medal for Distinguished Public Service, the Chairman of the Joint Chiefs of Staff Joint Distinguished Civilian Service Award, the Presidential Distinguished Service Award, and several Department of State Superior Honor Awards. In 2010, he was named a knight of the French National Order of the Legion of Honor.

Ambassador Edelman serves as the Chair of the National Defense Strategy Commission and on the bipartisan board of directors of the United States Institute of Peace.

## CSBA STAFF



### Roger M. Poor

#### CHIEF FINANCIAL OFFICER

Roger brings to CSBA decades of senior-level expertise in accounting, financial processes, internal controls, and compliance. His work in both the non-profit world as well as with growth-oriented services enterprises greatly enhances CSBA's financial operations in support of its stakeholders.

Prior to joining CSBA, Mr. Poor served in a global strategy consulting firm involved in international development, an aerospace engineering firm, a leading national security IT provider, and a Big Four public accounting firm, among other financial management roles. He has an MBA from the Wharton Business School and a BA from Princeton University.



### Evan B. Montgomery

#### DIRECTOR OF RESEARCH AND STUDIES, AND SENIOR FELLOW

Evan Montgomery is a Senior Fellow and the Director of Research and Studies at the Center for Strategic and Budgetary Assessments.

During more than a decade at CSBA, Dr. Montgomery has written dozens of monographs, reports, journal articles, and book chapters on a wide range of topics, including great power competition, alliance management, East Asia security challenges, and nuclear issues. In 2016-2017 he served as Special Advisor to the Vice Chairman of the Joint Chiefs of Staff, where he worked primarily on defense innovation and nuclear modernization.

Dr. Montgomery is the author of numerous CSBA reports, most recently *Reinforcing the Front Line: U.S. Defense Strategy and the Rise of China and Extended Deterrence in the Second Nuclear Age: Geopolitics, Proliferation, and the Future of U.S. Security Commitments*. His commentary and analysis have also appeared in *The Wall Street Journal*, *Foreign Affairs*, *International Security*, *Security Studies*, and the *Journal of Strategic Studies*, among other outlets. His book, *In the Hegemon's Shadow: Leading States and the Rise of Regional Powers*, was published by Cornell University Press.

Dr. Montgomery graduated summa cum laude from Villanova University and received his M.A. and Ph.D. from the University of Virginia. He is a past recipient of the Smith Richardson Foundation Strategy and Policy Fellowship, the Council on Foreign Relations International Affairs Fellowship, and the Department of Defense Joint Civilian Service Commendation Award.



## Ross Babbage

### NON-RESIDENT SENIOR FELLOW

Dr. Ross Babbage served for 16 years in the Australian Public Service holding several senior positions, including Head of Strategic Analysis in the Office of National Assessments, and leading the branches in the Department of Defence responsible for ANZUS Policy and Force Development. He also worked as a special advisor to the Minister for Defence during the preparation of the 2009 Australian defence white paper.

Through the 1990s, Ross Babbage was a member of the team that reformed the Office of Defence Production with its loss-making, government-owned defence factories. What emerged was a modern, profitable corporation known as ADI Limited that grew to become Australia's largest defence company.

Dr Babbage has served on the Council of the International Institute for Strategic Studies in London and during 2003-2004 was Head of the Strategic and Defence Studies Centre at the Australian National University.

His publications include *A Coast Too Long: Defending Australia Beyond the 1990s* (Allen & Unwin, Sydney, 1990), *Australia's Strategic Edge in 2030* (Kokoda Foundation, Canberra, February 2011), *Game Plan: The Case for a New Australian Grand Strategy* (Menzies Research Centre, Canberra, 2015) and *Countering China's Adventurism in the South China Sea: Strategy Options for the Trump Administration* (CSBA, 2016).

Dr. Babbage was appointed a Member of the Order of Australia in 2011.



## David R. Berke

### NON-RESIDENT SENIOR FELLOW

Mr. Berke is a Non-Resident Senior Fellow at the Center for Strategic and Budgetary Assessments. He has over 23 years of experience as an active-duty U.S. Marine specializing in 5th generation aviation, personnel and manpower, international affairs, and innovation as a tool to respond to new and emerging international security threats and challenges. His experience lies at the intersection of operational expertise and strategy development.

Berke is the founder of BVR Consulting, specializing in 5th generation air warfare and the integration of modern air assets into highly contested three-dimensional battlespace.

His professional highlights include two combat carrier deployments in the F/A-18 to Iraq and Afghanistan, a tour as a TOPGUN Instructor and F-16 pilot, experience as a combat Forward Air Controller, the only Marine to fly the F-22 Raptor while serving as the Division Commander in a USAF operational test squadron, the first operational pilot to fly the F-35B serving as the squadron commander, an academic fellowship at the Johns Hopkins University School of Advanced International Studies, and a tour as a division chief in the Joint Staff J-8 directorate and member of the Vice-Chairman's Joint Staff Innovation Group.

Mr. Berke received a master's degree in International Public Policy from SAIS and a B.A. in Political Science from California State University at Fullerton.



## CSBA STAFF



### Jack Bianchi

#### FELLOW

Jack Bianchi focuses on Asia strategy and U.S.-China long-term competition, including the U.S.-China military balance, the defense of regional allies, nuclear strategy, technology issues, and political warfare. Mr. Bianchi was previously a Research Analyst at Defense Group Inc. where he performed bilingual (Chinese and English) open-source research and analysis for U.S. government clients on Chinese cybersecurity issues and China's defense-related science and technology development.

Bianchi has working proficiency in Mandarin Chinese and has studied the language at academic programs in both Beijing and Taipei. His writing has appeared in *War on the Rocks*, *China Brief*, and *ORMS Today*, and he co-authored "Warfare Drivers: Mission

Needs and the Impact on Ship Design," a chapter in *Chinese Naval Shipbuilding: An Ambitious and Uncertain Course*. His prior experience also includes work at the Department of Justice and in the Office of Investment Security at the Department of the Treasury.

Bianchi has an M.A. in China Studies and International Economics from SAIS and a B.A. in International Studies from Boston College. He also completed the International Chinese Language Program at National Taiwan University as well as language courses at the Beijing Center for Chinese Studies at the University of International Business and Economics.



### Christopher J. Bowie

#### NON-RESIDENT SENIOR FELLOW

Trained as a historian, Dr. Bowie joined the RAND Corporation in 1981 as a member of the technical staff, where he worked on nuclear bomber operations, aerial refueling concepts, fighter employment operations, and a variety of air power doctrine and strategy issues.

Dr. Bowie left RAND to serve as a member of the Secretary of the Air Force's personal staff from 1989-1991 and was awarded the Exceptional Civilian Service medal. Following this assignment, Dr. Bowie returned to RAND to serve as Associate Director of the National Security Studies program. In 1994, Dr. Bowie joined Northrop Grumman, where he held a variety of management positions at the B-2 Division, Air Combat Systems,

Integrated Systems, and Corporate.

In 2002, the Air Force selected him for the Senior Executive Service to serve as the Deputy Director for Strategic Planning on the Air Staff. In that capacity, Dr. Bowie helped develop future USAF force structure plans, force structure planning tools, Air Force advocacy and outreach products, divestiture contingency planning, space policy, and a variety of other key long-range planning issues.

Dr. Bowie rejoined Northrop Grumman in 2005 to conduct cost-effectiveness and policy analyses of a wide array of issues, including aerial refueling, long-range strike, unmanned systems, radar technology, aircraft sustainment, and ballistic missiles. In 2010, he was appointed Director of the Corporate Analysis Center, where he and his team provided analytic support to senior management on a variety of key issues.

Dr. Bowie retired from Northrop Grumman in 2021 and continues to write on key air power and national security issues.



## Josh Chang

### ANALYST

Josh Chang is a research assistant at the Center for Strategic and Budgetary Assessments, where he focuses on U.S. defense strategy, great power competition, and foreign military capabilities and doctrines. He previously interned with research organizations such as the Center for Strategic and International Studies, Long Term Strategy Group, Hudson Institute, and the Council on Foreign Relations. Josh regularly writes about Latin American and East Asian security issues for the Georgetown Security Studies Review, where his work won GSSR's Best in Class Award for the 2019-2020 term.



## Thane C. Clare

### SENIOR FELLOW

Thane Clare is a Senior Fellow at the Center for Strategic and Budgetary Assessments. His analytical work focuses on naval, air, and space power, strategic war planning, defense planning in an era of great-power competition, and the nexus between operational planning and defense acquisition.

Dr. Clare joined CSBA following a 25-year career in the United States Navy, retiring at the rank of Captain. His final posting was as Branch Head, Navy Analytics, in the Office of the Chief of Naval Operations. Immediately prior to his final tour, Dr. Clare served as a Strategic Plans Advisor in the Office of the Secretary of Defense.

During his Navy career, Dr. Clare served twice in command at sea: first as Commanding Officer (CO) of the coastal patrol ship USS Whirlwind (PC 7), deployed to the Persian Gulf for the defense of critical Iraqi oil infrastructure, and most recently as CO of USS Mustin (DDG 89), forward deployed to Yokosuka, Japan and operating in the East and South China Seas, Philippine Sea, Pacific Ocean, and adjacent waters.

## CSBA STAFF



### David Cooper

#### NON-RESIDENT SENIOR FELLOW

Dr. David A. Cooper is a hybrid scholar-practitioner with more than three decades of expertise in nuclear policy, arms control negotiations, nuclear and missile nonproliferation, and foreign and defense policy. He previously held a tenured post as the James V. Forrestal Professor of National Security Affairs at the U.S. Naval War College, also serving for eight years as Chair of the Department of National Security Affairs. He is the author of numerous books, chapters, and articles. His most recent books are *Arms Control for the Third Nuclear Age: Between Disarmament and Armageddon* (Georgetown University Press, 2021) and, with Nikolas Gvosdev and Jessica Blankshain, *Decision-Making in American Foreign Policy: Translating Theory into Practice* (Cambridge

University Press, 2019). His articles have appeared in journals including *Foreign Policy Analysis*, *International Studies Perspectives*, *Nonproliferation Review*, *Orbis*, *Journal of Diplomacy and International Relations*, and *Washington Quarterly*. He previously served as a Senior Fellow and Director of Education and Outreach at the Center for the Study of Weapons of Mass Destruction at the National Defense University and he has taught graduate and undergraduate courses at Georgetown University, American University, and Park University.

Prior to becoming an academic, he served for nearly twenty years as a policy official in the Office of the Secretary of Defense (OSD) including as a career tenure member of the Senior Executive Service (SES). In his last SES assignment, he was dual-hatted as the inaugural Director of Strategic Communication and Interim Director of Outreach (J-9) at the then-new U.S. Africa Command. Prior Pentagon roles included as Principal Director for Homeland Security Integration, Director of Nonproliferation Policy, and Director of Strategic Arms Control Policy. He has extensive international negotiating experience in roles such as U.S. Representative to the United Nations Panel of Governmental Experts on Missiles, U.S. Head of Delegation to the Proliferation Security Initiative (PSI) Operational Experts Group, and OSD representative to the Biological Weapons Convention (BWC) Protocol negotiations, Missile Technology Control Regime (MTCR), Organization for Security and Cooperation in Europe (OSCE), the Arms Control and Regional Security (ACRS) talks of the Middle East Peace Process, and in numerous bilateral negotiations including with Russia, China, and North Korea. He has extensive regional security experience with the Indo-Pacific, Europe-NATO, and the Middle East.



### Madison Creery

#### RESEARCH FELLOW

Madison Creery is a research fellow at the Center for Strategic and Budgetary Assessments. Her work focuses on the defense budget, future warfare, and great power competition. Prior to CSBA, Madison was a Cyber Strategy and Policy Analyst with the U.S. Cyberspace Solarium Commission, where she developed approaches and recommendations for the Department of Defense in the cyber domain. Her prior experience also includes work at the American Enterprise Institute and the Center for Strategic and International Studies, focusing on U.S. military strategy and the defense budget.





## Katherine Kjellström Elgin

FELLOW

Dr. Katherine Kjellström Elgin is a fellow at the Center for Strategic and Budgetary Assessments. She brings rigorous research to policy discussions and has held positions in both academic and policy organizations. Prior to joining CSBA, she served as a DAAD Post-Doctoral Fellow at the Foreign Policy Institute of Johns Hopkins School of Advanced International Studies (SAIS), where she wrote and published on grand strategy, great power relations, U.S. defense strategy, European security, and alliance management. Dr. Elgin has also worked at the Brookings Institution and with the Long Term Strategy Group in Washington, D.C. In 2019, she served as a visiting fellow at the Institute for Security & Development Policy in Stockholm, Sweden.

Dr. Elgin earned her Ph.D. in Public Affairs (Security Studies) from Princeton University's School of Public & International Affairs. At Princeton, she served as the director of the Center for International Security Studies' Strategic Education Initiative, leading the university's program for educating and mentoring students with an interest in national and international security.

Dr. Elgin speaks French, Russian, and Swedish.



## Aidan Li Ping Greer

ANALYST

Aidan Li Ping Greer is an analyst at the Center for Strategic and Budgetary Assessments. His research focuses on East Asia, specifically U.S.-China-Taiwan relations and security. He is currently working on China's space program. He previously worked for Trivium China, a small policy research firm focusing on China's political economy. He has spent time studying Mandarin in both China and Taiwan.



## Tyler Hacker

RESEARCH FELLOW

Tyler Hacker is a research fellow at the Center for Strategic and Budgetary Assessments. His work focuses on U.S. defense strategy, future warfare, and great power competition. Prior to joining CSBA, Tyler was an analyst at the Congressional Research Service, where he conducted research on topics in defense logistics. Tyler previously served as a field artillery officer in the United States Army in Germany, where he participated in NATO operations and exercises in Poland, Romania, and the Baltic states. He has also completed internships at the U.S. Army War College and the American Enterprise Institute.

## CSBA STAFF



### Robert Haffa

#### NON-RESIDENT SENIOR FELLOW

Bob Haffa is a non-resident Senior Fellow at the Center for Strategic and Budgetary Assessments.

Prior to joining CSBA in 2011, Dr. Haffa directed the Northrop Grumman Analysis Center, having joined Northrop after retiring from the U.S. Air Force as a colonel. His Air Force career included a combat tour in Vietnam in RF-4C aircraft, F-4D/E squadron and wing assignments in England and Korea, teaching political science at the U.S. Air Force Academy where he served as professor and acting department head, and a tour with the Air Staff in the Pentagon as Chief of the Long Range Planning Division and Director of the Operations Group supporting the Air Force Chief of Staff.

At Northrop Grumman, Dr. Haffa's work included analyses of U.S. military strategy, force planning, programming, and wargaming for the business sectors of the company, as well as the development of corporate strategic planning scenarios. Dr. Haffa is an adjunct professor at Johns Hopkins University.

Dr. Haffa received a B.S. in International Affairs from the U.S. Air Force Academy, an M.A. in Political Science from Georgetown University, an M.S. in Management from the University of Arkansas, and a Ph.D. in Political Science from the Massachusetts Institute of Technology.



### David W. Hamon

#### NON-RESIDENT SENIOR FELLOW

Mr. Hamon is a non-resident Senior Fellow at the Center for Strategic and Budgetary Assessments. His experience and research focus on solutions to policy and strategy problems for the benefit of government and society by developing future-oriented, strategic research initiatives and teams as well as creating dialogue and engagement opportunities with diverse groups of experts. Hamon currently serves as Vice President for the Economic Warfare Institute and Director of Strategic Initiatives at Soft Power Solutions Inc.

Previously, he was a Distinguished Analyst & Founding Director of Banyan Analytics Institute, Analytic Services Inc.; Director of Strategic Research and Dialogues as well as Deputy Director of Research and Studies of the Defense Threat Reduction Agency, Office of Advanced Systems and Concepts; and Regional Director for Policy and Programs, African Affairs for the Office of the Secretary of Defense. He additionally served with the United Nations Department of Peacekeeping Operations. He is an adjunct faculty member for the University of Montana, the University of Mary Washington, and Webster University. He is a retired U.S. Army Logistician.

Hamon received his M.A. in Political Science/International Affairs from Northeastern University.



## Michael A. Hunzeker

NON-RESIDENT SENIOR FELLOW

Michael A. Hunzeker is an assistant professor at George Mason University's Schar School of Policy and Government, where he also serves as the associate director of the Center for Security Policy Studies. His work on deterrence, military adaptation, and war termination has appeared in *Security Studies*, *the Journal of Strategic Studies*, *PS: Politics and Political Science*, *Parameters*, *Defense One*, *War on the Rocks* and the *RUSI Journal*. Michael recently published a book on wartime learning, *Dying to Learn: Wartime Lessons from the Western Front* with Cornell University Press. He has also co-authored monographs on conventional deterrence in northeastern Europe and the Taiwan Strait. Michael served in the U.S. Marine Corps from 2000–2006 and holds an A.B. from the University of California, Berkeley as well as a Ph.D., M.P.A., and A.M. from Princeton University.



## Ivan Kanapathy

NON-RESIDENT SENIOR FELLOW

From March 2018 to July 2021, Ivan Kanapathy served on the White House's National Security Council staff as Director for China, Taiwan, and Mongolia and Deputy Senior Director for Asian Affairs. In this capacity, he staffed and advised the President and National Security Advisor and led U.S. government interagency policy development and implementation on relations and engagement with China and Taiwan—including shepherding the most comprehensive and significant U.S. policy shift toward the People's Republic of China in four decades. From 2014 to 2017, Ivan worked at the American Institute in Taiwan, representing U.S. interests and advising on military and security issues in Taipei.

Earlier in his career, Ivan spent a year studying in Beijing and traveling throughout China, Taiwan, and Southeast Asia as a US Marine Corps foreign area study fellow; he later led the development and implementation of the service's global security cooperation strategy and policies at the Pentagon. As a Naval Flight Officer, Ivan accumulated 2500 flight hours, served three years as a F/A-18 weapons officer and tactics instructor at the US Navy Fighter Weapons School (better known as TOPGUN), and deployed to the Middle East and Western Pacific five times, earning several combat awards and decorations. He holds a M.A. (with Distinction) in East Asia security studies from the Naval Postgraduate School, a B.S. in Physics and Economics from Carnegie Mellon University, and an A.A. and diploma (with Highest Honors) in Chinese-Mandarin from the Defense Language Institute.



## Sameer Lalwani

NON-RESIDENT SENIOR FELLOW

Sameer Lalwani is a Senior Expert in the Asia Center at the U.S. Institute of Peace.

Dr. Lalwani's research interests include nuclear deterrence, interstate rivalry, alliances, crisis behavior, counter/insurgency, and Indo-Pacific security. He is a term member with the Council on Foreign Relations, and a Contributing Editor to *War on the Rocks*. Previously, he was a Senior Fellow for Asia Strategy and the Director of the South Asia Program at the Henry L. Stimson Center. He has also been an Adjunct Professor at GWU's Elliott School of International Affairs and a Stanton Nuclear Security Postdoctoral Fellow at the RAND Corporation. He is the editor of *Investigating Crises: South Asia's Lessons, Evolving Dynamics, and Trajectories* (Stimson Center, 2018). His

research has also been published in *Security Studies*, *International Studies Quarterly*, *the Journal of Strategic Studies*, *Small Wars & Insurgencies*, *Survival*, *The Washington Quarterly*, *Asian Survey*, *Foreign Affairs*, and the *New York Times*. Lalwani completed his Ph.D. from the Massachusetts Institute of Technology's Department of Political Science and was an affiliate of the MIT Security Studies Program.



## CSBA STAFF



### Benjamin Lambeth

#### NON-RESIDENT SENIOR FELLOW

Dr. Benjamin S. Lambeth assumed this position in July 2011 after a 37-year career as a Senior Research Associate at the RAND Corporation, where he remains an adjunct associate.

Before joining RAND, he served in the Office of National Estimates at the Central Intelligence Agency and worked for both the Center for Strategic and International Studies and the Institute for Defense Analyses. In 2002, he was elected an honorary member of the Order of Daedalians, the national fraternity of U.S. military pilots. In 2008, Dr. Lambeth was appointed by the Secretary of Defense to serve an eight-year term as a member of the Board of Visitors of Air University. He is a member of the Council on

Foreign Relations, the Air Force Association, the U.S. Naval Institute, the Association of Naval Aviation, the Red River Valley Fighter Pilots Association, and the Editorial Advisory Boards of *Air and Space Power Journal* and *Strategic Studies Quarterly*.

Dr. Lambeth received a B.S. in Political Science from the University of North Carolina at Chapel Hill, an M.A. in Government from Georgetown University, and a Ph.D. in Political Science from Harvard University.



### Whitney M. McNamara

#### NON-RESIDENT SENIOR FELLOW

Whitney McNamara is a Vice President at Beacon Global Strategies where she supports its National Security and Technology practice.

She previously led the Science and Technology portfolio of the Department of Defense's Defense Innovation Board (DIB), whose mission is to provide the Secretary of Defense, Deputy Secretary of Defense, and other senior leaders across the Department with independent advice and recommendations on emerging technologies and innovative approaches that DoD should adopt to ensure U.S. technological and military dominance. Before that, she served in the Department's Chief information Office as an emerging technologies policy subject matter expert. Prior to that, she was a Senior Analyst at the Center

for Strategic and Budgetary Assessments, focusing on emerging technologies, future operating concepts, and informationized warfare in the context of long term technological and military competition.

Ms. McNamara is a former National Security Fellow at the Woodrow Wilson Center and worked in the Political-Military Bureau at the Department of State and in the Office of the Secretary of Defense for Middle East Policy. She received her M.A. in Strategic Studies and International Economics from the Johns Hopkins School of Advanced International Studies where she was a Bradley Fellow and a Presidential Management Fellowship Finalist. Prior to that, she spent four years working in the Middle East as a project manager supporting capacity building in local civil society organizations throughout the Arab Spring. She has written for or been quoted in the *Washington Post*, *Cipher Brief*, *Real Clear Defense*, *Breaking Defense*, *C4ISRNET*, *Air Force Magazine*, *The Center for International Maritime Security*, *Aspen Review*, *The National Interest*, *Al-Monitor*, and *Al Arabiya*.



## James Mersol

### PUBLICATIONS MANAGER

James Mersol is the Publications Manager at the Center for Strategic and Budgetary Assessments. Prior to joining CSBA, he covered cybersecurity and national security for GovernmentCIO Media & Research. Previously, James interned at the Center for Strategic and International Studies, where he focused on defense budget issues, and at the Intelligence and National Security Alliance, where he focused on financial threats, cybersecurity, and acquisition management. While pursuing his master's degree, he edited for the *SAIS Review* and worked as Dr. Eliot Cohen's research assistant. James also serves as an editor for *Charged Affairs*, the online publication for Young Professionals in Foreign Policy.

James graduated from Davidson College with a B.A. in Political Science (*cum laude*) and from the Johns Hopkins School of Advanced International Studies (SAIS) with an M.A. in Strategic Studies and International Economics.



## Meredith Meyers

### OFFICE MANAGER

Meredith is CSBA's office manager, bringing with her a comprehensive accounting and managerial skill set. Her background includes a local niche law firm, a large international law firm, and a financial planning office. She manages a broad array of responsibilities for CSBA including accounting functions for payables and receivables, office administration, human resources, contracting and purchasing, and office operations. In her free time, Meredith enjoys gardening and biking.



## Tate Nurkin

### NON-RESIDENT SENIOR FELLOW

Tate Nurkin is a Non-Resident Senior Fellow with the Center for Strategic and Budgetary Assessments and the founder of OTH Intelligence Group LLC, a defense consulting and research firm. He is also a Non-Resident Senior Fellow at the Atlantic Council.

He is a frequent author and speaker on defense technology and the future of military capabilities; Indo-Pacific defense, security, and geopolitical issues; and the global defense industry and markets. He also has nearly 25 years of experience in the design and delivery of wargames and scenario planning exercises. His analysis and commentary has appeared in CNN.com, Defense News, Jane's Defence Weekly, Jane's Intelligence Review, The Hill, Deutsche Welle, and The New Atlanticist blog among other publications.

Recently published reports include *The Five Revolutions: Examining Defense Innovation in the Indo-Pacific* (December 2020) and *Emerging Technologies and the Future of US-Japan Defense Collaboration* (April 2020). He also served as lead author on *China's Advanced Weapons Systems*, a Jane's report published in 2018 by the US-China Economic and Security Review Commission. He has provided testimony to the Commission on two occasions. In conjunction with Armasuisse, Tate has authored the bi-monthly DEFTECH Scan, a publicly available global survey of defense technology developments since January 2019.

Prior to establishing OTH Intelligence Group in March 2018, Tate spent 12 years at Janes where he served in a variety of roles, including from 2013 as the Executive Director of Strategic Assessments and Futures Studies.

## CSBA STAFF

From 2014–2018 he served consecutive two-year terms on the World Economic Forum’s Nuclear Security Global Agenda Council and its Future Council on International Security, which was established to explore the implications of Fourth Industrial Revolution technologies on global security and defense.

Tate previously worked for Joint Management Services, the Strategic Assessment Center of SAIC, and the Modeling, Simulation, Wargaming, and Analysis team of Booz Allen Hamilton primarily supporting the U.S. Defense and Intelligence Community. He holds a Master of Science degree in International Affairs from the Sam Nunn School of International Affairs at Georgia Tech and a Bachelor of Arts in history and political science from Duke University. He lives in Charlotte, NC.



### Carl Rehberg

#### NON-RESIDENT SENIOR FELLOW

Dr. Carl Rehberg was founder and director of the Headquarters Air Force Asia-Pacific Cell, which played a pivotal role in the development of Air Force strategy, force development, planning, analysis, and warfighting concepts supporting initiatives related to Asia-Pacific and the DoD Third Offset Strategy. Dr. Rehberg spearheaded the establishment of the China Aerospace Studies Institute (CASI) and led the development of innovative concepts and capability proposals to improve DoD’s joint resiliency and integrated air and missile defenses.

Prior to this assignment, he was the Assistant Associate Director for AF Strategic Planning and Director, Analysis Division in the AF QDR organization, leading multiple assessments of future capabilities and force structure.

During his 26+ year Air Force career, Rehberg served as a command pilot with over 6200 hours flying time in 25+ different aircraft including the KC-135, B-1B, TG-7, and T-3A. He taught Military Art and Science at the USAF Academy, and was instrumental in helping form the USAF Academy Center for Character Development. In the late 1990s, he served in the Pentagon as a strategic planner, programmer, and analyst, leading several studies for the Secretary of Defense on the Total Force. In 2001, Rehberg was selected as a National Security Fellow at Harvard and then spent two years at the National Defense University’s Industrial College of the Armed Forces (ICAF) teaching courses in grand strategy, military mobilization, and the aircraft industrial base. As Chief, Long-Range Plans of the Air Staff, Rehberg led the development of future force structure plans and courses of action for numerous AF/defense resource and tradespace analyses.

Dr. Rehberg holds B.S. in Industrial Technology [Aviation Administration] with honors from California State University, Los Angeles; an M.A. in Political Science from the University of South Dakota; and a Ph.D. in Public Administration from the University of Colorado at Denver. He was also a National Security Fellow at Harvard University.



### Joseph Ross

#### ANALYST

Joseph Ross is an analyst at the Center for Strategic and Budgetary Assessments. His research and work focus on the U.S.–Japan alliance, U.S.–Taiwan security policy, future joint warfighting concepts, and developing trends in space. He previously interned at organizations such as the Stimson Center’s Japan Program, the Global Taiwan Institute, and the Project 2049 Institute, where he provided writing and research on Japan’s joint operational challenges, alliance crisis coordination, and Chinese military operations.





## Tim Sadov

### RESEARCH ASSISTANT

Tim Sadov is a Research Assistant at the Center for Strategic and Budgetary Assessments. His research focuses on Russian military strategy and U.S./allied force planning. Prior to joining CSBA, Tim was an Undergraduate Fellow at Princeton University's Center for International Security Studies (CISS). Tim has professional working proficiency in Russian and has interned at an international human rights law firm.



## Robert E. Schmidle, Jr.

### NON-RESIDENT SENIOR FELLOW

Lieutenant General (retired) Schmidle is the University Advisor on Cyber Capabilities and Conflict Studies at Arizona State University. Dr. Schmidle is also a Professor of Practice in the School of Politics and Global Studies. Additionally, he is a Senior Fellow in the Center on the Future of War at Arizona State University.

While on active duty he served as the first Deputy Commander of United States Cyber Command, responsible for standing up the command while concurrently executing full-spectrum cyber operations. Subsequently, he was the head of Marine Aviation and his final assignment on active duty was as the Principal Deputy Director, Cost Assessment and Program Evaluation in the Office of the Secretary of Defense.

He holds degrees from Drew University and American University and earned his doctorate from Georgetown University. His thesis, recognized with distinction, was titled "The Power of Context in Shaping Moral Choices." He is a member of the Council on Foreign Relations and the Defense Science Board. His numerous publications are in the fields of moral philosophy, social psychology, and military history.



## Harrison Schramm

### NON-RESIDENT SENIOR FELLOW

Harrison Schramm has been a leader in the Operations Research community for the past decade. Prior to joining CSBA, he had a successful career in the US Navy, where he served as a Helicopter Pilot, Military Assistant Professor at the Naval Postgraduate School, and as a lead Operations Research Analyst in the Pentagon. His areas of emphasis were large-scale simulation models, statistics, optimization, and applied probability. His current research is at the intersection of data, mathematical models, and policy.

Mr. Schramm enjoys professional accreditation from the Institute for Operations Research and Management Sciences (CAP, INFORMS), the American Statistical Association (PStat, ASA), and the Royal (UK) Statistical Society (CStat, RSS).

His published work has appeared in INTERFACES, J. Applied Meteorology and Climatology, SIGNIFICANCE, J. Mathematical Biosciences, Proceedings of the US Naval Institute, OR/MS Today, and Military Operations Research. He is a past Vice President of the Military Operations Research Society (MORS) and is active in several Committees of INFORMS. Notably, in 2018, he served as a Judge for the prestigious Franz Edelman Award.

Mr. Schramm is a recipient of the Richard H. Barchi Prize, Steinmetz Prize, Meritorious Service Medal, Air Medal, and the Naval Helicopter Association's Aircrew of the Year. He is the 2018 recipient of the Clayton Thomas award for distinguished service to the profession of Operations Research.

## CSBA STAFF



### Travis Sharp

#### SENIOR FELLOW

Travis Sharp directs the budget program and works to educate and inform policymakers, senior leaders, and the general public about the defense budget and issues pertaining to resourcing national security. He also serves as an officer in the U.S. Navy Reserve while completing his Ph.D. in security studies at Princeton University's Woodrow Wilson School of Public and International Affairs.

Sharp has held positions with academic and policy organizations, including George Washington University's Institute for Security and Conflict Studies, West Point's Modern War Institute, the Office of the Secretary of Defense, the Center for a New American Security, and the Center for Arms Control and Non-Proliferation. He has published

think tank monographs, journal articles, and commentaries on defense spending and strategy, cybersecurity, and military-to-military contacts between great power rivals, the topic of his dissertation.

Sharp is a past recipient of the Sasakawa Young Leaders Fellowship, the A.B. Krongard and John Parker Compton Fellowships at Princeton, the 1LT Bacevich Fellowship at CNAS, the Harold Rosenthal Fellowship in International Relations, and the Herbert Scoville Peace Fellowship.

Sharp holds a B.A. in History and Political Science (*summa cum laude*) from the University of San Francisco, an M.P.A. in International Relations, and an M.A. in Public Affairs from Princeton University, Woodrow Wilson School of Public and International Affairs.



### Michael Thadani

#### DEVELOPMENT & COMMUNICATIONS COORDINATOR

Michael Thadani is the Development & Communications Coordinator at the Center for Strategic and Budgetary Assessments (CSBA) and a graduate student in Georgetown University's Walsh School of Foreign Service. He supports a range of development and public relations efforts for CSBA and serves as a media point of contact. Prior to joining CSBA, he worked as a strategic communications consultant at KekstCNC, advising clients on transaction and crisis communications, as well as investor relations. He has also worked in legal business development and litigation consulting.



### Jan van Tol

#### SENIOR FELLOW

Prior to his retirement from the Navy in 2007, Captain van Tol served as a special adviser in the Office of the Vice President.

He was a military assistant to Andrew W. Marshall, the Secretary of Defense's Principal Advisor for Net Assessment, from 1993-96 and again from 2001-2003. At sea, he commanded three warships, two of which, the USS O'Brien (DD-975) and the USS Essex (LHD-2), were part of the U.S. Navy's Forward Deployed Naval Forces based in Japan.

van Tol's analytic work has focused mainly on long-range strategic planning, naval warfare, military innovation, and wargaming. And he holds degrees in Philosophy and

Logic from the University of Massachusetts, in Operations Research from the Naval Postgraduate School, and he graduated with distinction from the Naval War College.



## Toshi Yoshihara

### SENIOR FELLOW

Before joining CSBA, Toshi Yoshihara held the John A. van Beuren Chair of Asia-Pacific Studies at the U.S. Naval War College where he taught strategy for over a decade. He was also an affiliate member of the China Maritime Studies Institute at the war college.

Dr. Yoshihara has been a visiting professor of international politics at the Fletcher School of Law and Diplomacy, Tufts University since 2012. He has also taught as a visiting professor at the School of Global Policy and Strategy, University of California, San Diego and as a visiting professor in the Strategy Department at the U.S. Air War College. He has served as a research analyst at the Institute for Foreign Policy Analysis, RAND, and the American Enterprise Institute.

Dr. Yoshihara has testified before the Defense Policy Board, the House Foreign Affairs Committee, and the U.S.-China Economic and Security Review Commission. He is the recipient of the Navy Meritorious Civilian Service Award in recognition of his scholarship on maritime and strategic affairs at the Naval War College.

He is co-author of *Red Star over the Pacific: China's Rise and the Challenge to U.S. Maritime Strategy* (Naval Institute Press, 2010 and 2018), which has been listed on the Chief of Naval Operation's Professional Reading Program since 2012. Translations of *Red Star over the Pacific* have been published in China, Germany, Japan, South Korea, and Taiwan.

He has also co-authored *Indian Naval Strategy in the Twenty-first Century* (Routledge, 2009) and *Chinese Naval Strategy in the Twenty-first Century: The Turn to Mahan* (Routledge, 2008). He is co-editor of *Strategy in the Second Nuclear Age: Power, Ambition, and the Ultimate Weapon* (Georgetown University Press, 2012) and *Asia Looks Seaward: Power and Maritime Strategy* (Praeger, 2008). His articles on Chinese seapower, maritime strategy, and Asian security issues have appeared in *Journal of Strategic Studies*, *Asian Security*, *Washington Quarterly*, *Orbis*, *World Affairs*, *Comparative Strategy*, *Strategic Analysis*, *Journal of the Indian Ocean Region*, and *Naval War College Review*. The *Naval War College Review* awarded him the Hugh G. Nott Prize for best article of 2010.

He holds a Ph.D. from the Fletcher School of Law and Diplomacy, Tufts University, an M.A. from the School of Advanced International Studies, Johns Hopkins University, and a B.S.F.S. from the School of Foreign Service, Georgetown University.



## CSBA BOARD MEMBERS



### Barbara Humpton, Chair

**PRESIDENT & CEO  
SIEMENS USA**

Barbara Humpton serves as President and Chief Executive Officer of Siemens USA, using its global leadership in engineering and technology innovation to meet America's toughest challenges, delivering solutions for industry, hospitals, utilities, cities, and manufacturers: from efficient power generation, to digital factories and oil and gas fields, to medical diagnostics, to locomotives, to next-generation software used in every phase of product development. Prior to joining Siemens, Humpton served as a Vice President at Booz Allen Hamilton where she was responsible for program performance and new business development for technology consulting in the Department of Justice and

Department of Homeland Security. Earlier, Humpton was a Vice President at Lockheed Martin Corporation with responsibility for Biometrics Programs, Border and Transportation Security and Critical Infrastructure Protection, including such critical programs as the FBI's Next Generation Identification and the TSA's Transportation Workers' Identification Credential. Humpton is a graduate of Wake Forest University with a degree in Mathematics. She resides in Washington, DC, with her husband David.



### Anita Antenucci

**SENIOR MANAGING DIRECTOR  
HOULIHAN LOKEY**

Ms. Antenucci recently founded a merchant banking firm partnering with investors and business owners in the government contracting sector. Until last year Antenucci was a Senior Managing Director at Houlihan Lokey's Aerospace • Defense • Government practice and was a member of the firm's board of directors prior to its IPO in August 2015. Antenucci has nearly three decades of investment banking experience, including M&A, financing, and valuation. Prior to that, she served as the Co-President and Managing Director of Quarterdeck Investment Partners, a boutique industry investment bank, and worked on the buy-side and sell-side for an array of Fortune 500 and international

companies, small-caps, entrepreneurs, and private equity owners. Her clients have included most of the world's leading aerospace/defense contractors. With degrees from Johns Hopkins' School of Advanced International Studies and Northwestern University, Antenucci is the Chair of Board of Trustees of the Shakespeare Theatre Company and a Life Director of the Space Foundation. Antenucci is also a Director of the TSE-listed AirBoss of America Corporation and its defense-focused subsidiary AirBoss Defense Group and is on the Board of Advisors for I2Capital. Anita is a 2009 Henry Crown Fellow of The Aspen Institute and a member of the Aspen Global Leadership Network.



## Devon Cross

**PRESIDENT**

**POLICY FORUM ON INTERNATIONAL SECURITY AFFAIRS**

Devon Cross is Director of The Policy Forum on International Affairs and has extensive experience in funding research on foreign policy issues having served as Director of Research at Smith Richardson Foundation, President of The Donner Canadian Foundation, and Director of The Gilder Foundation. Ms. Cross serves on the boards of The Peter Munk Charitable Foundation, Intelligence Squared/U.S., and the Advisory Board for Johns Hopkins SAIS National Security Studies Program, and she served on the Pentagon's Defense Policy Board from 2001–2009. Her Washington experience included stints at The Center for Strategic and International Studies, Carnegie Endowment, and the International Security Studies Program at the Woodrow Wilson Center. She studied at Johns Hopkins School of Advanced International Studies and received her B.A. from Bryn Mawr College. She is a member of the Council on Foreign Relations.



## Admiral Phil Davidson, USN (Retired)

**U.S. NAVY, 1982-2021**

Admiral Davidson retired from the U.S. Navy in 2021, following a highly distinguished 39-year military career, which culminated in his service as the 25th Commander of United States Indo-Pacific Command (USINDOPACOM) from May 2018 through April 2021. USINDOPACOM is the oldest and largest U.S. combatant command, including 380,000 soldiers, sailors, marines, airmen, coast guardsmen, and Department of Defense civilians.

Admiral Davidson has served as a surface warfare officer in frigates, destroyers, cruisers, and aircraft carriers, and was commander of the Eisenhower Carrier Strike Group. He was previously the commander, U.S. Fleet Forces Command in his first 4-star assignment, the commander of U.S. SIXTH Fleet and commander, Naval Striking and Support Forces NATO as a 3-star, and among other joint, interagency and fleet headquarters assignments, served in the State Department, and in the Office of the Vice President as the Navy's military aide to the Vice President of the United States. Admiral Davidson's decorations include the Defense Distinguished Service Medal, the Navy and Marine Corps Commendation Medal with Combat "V," a Superior Honor Award from the U.S. Department of State, and other personal, service, unit, and campaign awards. He is a graduate of the United States Naval Academy and holds an M.A. in National Security and Strategic Studies from the U.S. Naval War College.

## CSBA BOARD MEMBERS



### Rep. J. Randy Forbes (R-VA), Retired MEMBER

U.S. HOUSE OF REPRESENTATIVES, 2002-2015

Former U.S. Representative J. Randy Forbes is a Senior Distinguished Fellow at the U.S. Naval War College in Newport, Rhode Island, where he shares with students and faculty his perspective on topics such as maritime strategy, naval policy, civil-military relations, and the role of Congress in national security affairs. Previously, he represented the Hampton Roads region for 16 years in the U.S. House of Representatives. While in Congress, Forbes served as a senior member of the House Armed Services Committee. He was Chairman of the Subcommittee on Readiness from 2011–2013 and Chairman of the Subcommittee on Seapower and Projection Forces from 2013–2017. Forbes was

widely recognized as the leading authority in Congress on naval issues. He also founded the Congressional China Caucus to call attention to China’s growing military and economic power and raise awareness about its implications for the United States. He has been recognized with more than a dozen awards for his maritime leadership, including the Navy’s Distinguished Public Service Award and the Navy League’s “Outstanding Civilian Leadership” and “Teddy Roosevelt ‘Big Stick’” Awards. Prior to his service in Congress, Forbes served in the Virginia Senate and House of Delegates and was an attorney in private practice. Forbes received his B.A. in Political Science from Randolph-Macon College (graduating valedictorian) and his J.D. from the University of Virginia Law School.



### Adam Frankel

GENERAL COUNSEL

CBAM PARTNERS, LLC

Adam B. Frankel is General Counsel at CBAM Partners, LLC in New York. Prior to joining CBAM, he was Evercore’s Senior Managing Director and the firm’s General Counsel from 2006 to 2018. From 2003 to 2006, Mr. Frankel was senior vice president, general counsel, and corporate secretary of Genesee & Wyoming Inc., a leading owner, and operator of short line and regional freight railroads in the United States, Canada, Mexico, Australia, and Bolivia. Mr. Frankel was also responsible for matters related to human resources and government affairs. Mr. Frankel worked from 1999 until 2003 as a corporate and transactions attorney in the office of the general counsel at Ford Motor Company.

From 1995 until 1999, Mr. Frankel was an associate at Simpson Thacher & Bartlett in London and New York. Mr. Frankel is a member of the Council on Foreign Relations, and a trustee at the Sesame Workshop. He has a B.A. from Brown University and a J.D. from Stanford Law School.



### General John M. Keane, United States Army, (Ret.)

CHAIRMAN

INSTITUTE FOR THE STUDY OF WAR

General Jack Keane is a foreign policy and national security expert who provides nationwide analysis and commentary in speeches, articles, congressional testimony and through several hundred television and radio interviews annually. He serves as an advisor to presidents, cabinet officials, members of congress, international leaders, CEOs and business leaders. He is the Chairman of the Institute for the Study of War, a member of the prestigious Secretary of Defense Policy Board, having advised four Defense Secretaries and a member of the 2018 and 2022 Congressional Commission on the National Defense Strategy.

General Keane, a four-star general, completed 37 years of public service in December 2003, culminating in his appointment as acting Chief of Staff and Vice Chief of Staff of the U.S. Army. As the chief operating officer of the Army for over 4 years, he directed 1.5 million soldiers and civilians in 120 countries, with an annual



operating budget of 110 billion dollars. General Keane was in the Pentagon on 9/11 and provided oversight and support for the wars in Afghanistan and Iraq. In late 2006 President Bush invited General Keane to the Oval Office among others to discuss Iraq. Alone among them, General Keane brought the president a concrete strategic concept, later to be known as the troop “surge” which he helped develop, to change American strategy for the war and improve its execution. During the surge period General Keane conducted frequent trips to Iraq and Afghanistan for senior defense officials. General Keane is a career infantry paratrooper, a combat veteran of the Vietnam War decorated for valor, who spent much of his military life in operational commands, including command of the famed 101st Airborne Division (Air Assault) and the legendary 18th Airborne Corps, the Army’s largest warfighting organization.

General Keane is the son of an immigrant mother, a WWII Marine father, a born and raised New Yorker and lifelong NY Yankee fan. He was commissioned an infantry 2nd Lieutenant from Army ROTC as a Distinguished Military Graduate at Fordham University receiving a Bachelor of Science degree and received a Master of Arts degree from Western Kentucky University. He is a graduate of the Army War College and the Army Command and General Staff College.

Among his awards, General Keane was the first military leader to be honored with the Ronald Reagan Peace Through Strength Award and the prestigious Bradley Prize. In March of 2020 General Keane was presented with the Presidential Medal of Freedom at the White House. General Keane’s numerous military service medals and citations include two Defense and two Army Distinguished Service Medals, five Legions of Merit, the Silver Star, Bronze Star, three Vietnam Service medals, Combat Infantryman Badge, Master Parachutist Badge and Ranger Tab, to list a few.



## General Paul Selva, USAF (Ret.)

**VICE CHAIR, BOARD OF TRUSTEES  
THE AEROSPACE CORPORATION**

General Paul Selva retired from the United States Air Force in July of 2019 after 39 years of service. He is an aviator whose operational assignments culminated with command of Air Mobility Command and subsequently United States Transportation Command. Immediately prior to his retirement General Selva served as the tenth Vice Chairman of the Joint Chiefs of Staff. He is an advisor to the Sierra Nevada Corporation, serves as a director for the Center for Strategic and Budgetary Assessments, and as a trustee for the Aerospace Corporation.

General Selva graduated from the United States Air Force Academy with a Bachelor of Science degree in Aeronautical Engineering and holds Master of Science degrees from Abilene Christian University in Management and Human Relations and Auburn University in Political Science. He is a graduate of the Air Command and Staff College and served on the first Secretary of Defense Strategic Studies Group.



## Laurence Zuriff

**GENERAL PARTNER  
ZFI CAPITAL**

Laurence is the founder and CFO of Xometry, an advanced manufacturing company. He also serves as the General Partner of ZFI Capital, a private investment partnership spun out of Granite Capital International Group in 2011. Mr. Zuriff currently chairs the International Economics Working Group of the John Hay Initiative and is a board member of the Alexander Hamilton Society. Mr. Zuriff holds a B.A. degree from Brown University and an M.A. from Johns Hopkins School of Advanced International Studies.

## CSBA COUNCIL

In 2019, we launched the CSBA Council, an advisory board composed of accomplished individuals whose interests in contemporary security debates coincide with CSBA's mission. The CSBA Council furthers the center's efforts to develop innovative, resource-informed defense concepts, promote public debate, and spur policies to advance the interests of the United States and its allies. The Council meets regularly with senior management, participates in efforts to promote CSBA and its work, and engages with our team to promote fresh thinking in national strategy and nurture the next generation of defense leaders.



### Sid Ashworth

**VICE PRESIDENT, OPERATIONS  
GE AVIATION**

Sid Ashworth serves on the Executive Committee of the National Defense Industrial Association, the Board of the National Military Family Association, and is a Trustee of the U.S. Air Force Academy Falcon Foundation. Previously she served as corporate vice president of government relations for Northrop Grumman Corporation, and vice president of Washington Operations for GE Aviation. Prior to joining GE Aviation, she was principal of the Ashworth Group.

Ms. Ashworth served for 14 years as a professional staff member with the U.S. Senate Committee on Appropriations. She also served as the staff director of the Defense Subcommittee and the Military Construction Subcommittee on Appropriations. During her tenure with the Defense Subcommittee, she was responsible for formulating funding and legislation recommendations for defense and intelligence spending in excess of \$600 billion annually. She also worked as a civilian in the Department of the Army, focused on resource management, force structure, and strategy. She served as a Special Advisor to the Commanding General, U.S. Army Pacific, and held several senior analyst positions with Eighth U.S. Army and U.S. Forces Korea.

She is a Senior Adviser with the Center for Strategic and International Studies, has served as an adjunct professor at the University of Maryland, and has lectured at Indiana University, The Brookings Institution, and Georgetown University. Ms. Ashworth was Senior Executive Fellow at Harvard University's JFK School of Government.

Ms. Ashworth earned her MBA from Campbell University a bachelor's degree in management from the University of Maryland, and was a Senior Executive Fellow at the John F. Kennedy School of Government, Harvard University.



**Philip Breedlove**  
**DISTINGUISHED PROFESSOR**  
**GEORGIA INSTITUTE OF TECHNOLOGY**

General Philip M. Breedlove, USAF (ret.) serves on the Advisory Board of the Georgia Institute of Technology, where he is also a Distinguished Professor at the Sam Nunn School of International Affairs. He is also on the Board of Directors of the Atlantic Council.

Mr. Breedlove served for 39 years in the United States Air Force, culminating his career as one of six geographic Combatant Commanders and Supreme Allied Commander of NATO. As Supreme Allied Commander Europe (SACEUR) and the Commander of U.S. European Command—in his NATO capacity he answered directly to the North Atlantic Council, and in his US capacity he answered directly to the President of the United States and Secretary of Defense. Previously, as Commander, U.S. Air Forces Europe, and Air Forces Africa, he was responsible for organizing, training, equipping, and maintaining combat-ready forces while ensuring theater air defense forces were ready to meet the challenges of peacetime air sovereignty and wartime defense. As Vice Chief of Staff of the Air Force, he presided over the Air Staff and served as a member of the Joint Chiefs of Staff Requirements Oversight Council and Deputy Advisory Working Group during a period of intense challenge as the Budget Control Act required a \$480 billion reduction of the DOD budget. Accordingly, he led the organization, training, and equipping of over 690,000 people serving in the United States Air Force and provided oversight of its \$120 billion annual budget. As Assistant Chief of Staff for Air Operations, Plans and Requirements, he directed all Air Force operations across the globe, oversaw strategic and operational planning, and set the requirements for all Air Force procurement. He held a variety of additional assignments including command of a squadron, a group, three fighter wings, and a Numbered Air Force in service across three different continents. His extensive command and control experience in wartime, contingency, and humanitarian relief actions include operations in Africa, Asia, and the Middle East.

Mr. Breedlove earned his Bachelor of Civil Engineering degree from The Georgia Institute of Technology, a Master of Science in Aerospace Technology from Arizona State University, and a Master of Science in International Security Affairs from the National War College.



**Christian Brose**  
**HEAD OF STRATEGY**  
**ANDURIL INDUSTRIES**

Christian Brose is Head of Strategy at Anduril Industries, Senior Fellow at the Carnegie Endowment for International Peace, and a member of the Aspen Strategy Group. From 2015-18, he was staff director of the Senate Armed Services Committee. In that capacity, he managed the Committee's professional staff in support of the Chairman and other majority members in overseeing all of the programs, policies, and resources of the Department of Defense, as well as confirming all of the Department's senior civilian and military leaders. He was also responsible for leading the production, negotiation, and passage of four National Defense Authorization Acts (FY16-19), which set policy and authorized spending for all U.S. national defense activities. From 2009-14, he served as senior policy adviser to Senator John McCain, supporting his work on the Senate Armed Services Committee, the Senate Select Committee on Intelligence, and the Senate Foreign Relations Committee. From 2008-09, he was senior editor of Foreign Policy magazine. Previously, he served as policy adviser and chief speechwriter to Secretary of State Condoleezza Rice, working as a member of the Secretary's Policy Planning Staff. He began his career in public service as a speechwriter for Secretary of State Colin Powell.

Mr. Brose studied political science at Kenyon College and international economics at the Johns Hopkins University's School of Advanced International Studies.





### Jonathan Burks

**VICE PRESIDENT, GLOBAL PUBLIC POLICY  
WALMART**

Jonathan Burks is a policy and political professional with two decades of experience at the highest levels of public service. He most recently served as the chief of staff to Speaker of the House Paul Ryan, where he managed a team of over 40 staff and served as the Speaker's principal adviser on policy, strategy, and management. Burks was promoted to chief of staff after having served as the Speaker's national security adviser where he was responsible for advising the Speaker on sensitive intelligence, defense, and foreign policy issues.

Prior to joining the Speaker's office, Burks advised Senate Majority Leader Mitch McConnell on budget and appropriations issues. Before going to the Senate, Burks served as policy director of the House Budget Committee, director of legislative affairs at the Securities and Exchange Commission, senior advisor to the Under Secretary of the Treasury for International Affairs, and policy advisor in the transition office of the newly created Director of National Intelligence. Burks also served as the deputy policy director on the 2012 Romney for President campaign. Previously, he served four years at the White House, including two years as a special assistant to President George W. Bush and two years as a deputy assistant to Vice President Dick Cheney.

Mr. Burks has an M.A. from the School of Advanced International Studies at Johns Hopkins University and a B.S. from Georgetown University.



### Lisa Disbrow

**SENIOR FELLOW  
JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY**

Lisa Stephens Disbrow is the former United States Under Secretary of the Air Force. From January to May 2017, she served as the Acting Secretary of the Air Force until Heather Wilson assumed the office. Previously, Ms. Disbrow served as Assistant Secretary of the Air Force for Financial Management and Comptroller. From 1995 to 2014, she held a variety of positions on the Joint Staff as a senior civilian, including the Joint Staff Vice Director for Force Structure, Resources, and Assessment. While assigned to the Joint Staff, Ms. Disbrow was detailed to the president's National Security Advisor as the special advisor for policy implementation and execution at the White House, where

she assisted in planning and implementing the National Security Strategy.

Ms. Disbrow currently serves as a Director on the Boards of Mercury Systems, Perspecta, BlackBerry, and the Logistics Management Institute (LMI). She is a Senior Fellow at The Johns Hopkins University Applied Physics Laboratory and is the Chair of Mitre Corporation's U.S. Air Force Advisory Board.

Ms. Disbrow is a graduate of the University of Virginia, and she served as an officer in the United States Air Force from 1984 to 2008, primarily in the intelligence field. Following Operation Desert Storm, she left active service, continued to serve in the US Air Force Reserve, and contributed to the intelligence community both as a reserve officer and as a senior systems engineer for the National Reconnaissance Office.



## Tina Jonas

**EXECUTIVE COMMITTEE  
NATIONAL DEFENSE INDUSTRIAL ASSOCIATION**

Tina W. Jonas has served at the highest levels in both the government and commercial sectors and is a recognized expert in military, defense, and aerospace issues. Ms. Jonas is currently an independent consultant and serves on several boards, including the Aerospace Corporation, Serco, Arete, and Top Aces Corporation. She also serves on the executive committee of the National Defense Industrial Association, the United Services Organization (USO), and is chairman of the National Military Family Association.

Ms. Jonas served more than two decades in government and national security positions. She was Undersecretary of Defense (comptroller) for the Department of Defense from 2004 to 2008. Prior to that, she served as Assistant Director and Chief Financial Officer for the Federal Bureau of Investigation, as Deputy Undersecretary of Defense for Financial Management, and as a senior analyst with the Office of Management and Budget and the House Appropriations Defense Subcommittee. Her education includes executive studies at Harvard University's Kennedy School of Government and the University of Virginia's Darden School of Business. Ms. Jonas holds an M.A. in liberal studies from Georgetown University and a B.A. in political science from Arizona State University.



## Paul Lettow

**DIRECTOR  
ALEXANDER HAMILTON SOCIETY**

Paul Lettow served as the Senior Director for Strategic Planning on the National Security Council staff at the White House from 2007 to 2009. He has also served in the Department of State. Paul is the author of *Ronald Reagan and His Quest to Abolish Nuclear Weapons and Strengthening the Nuclear Nonproliferation Regime*, as well as numerous articles. He serves on the Board of Directors of the Alexander Hamilton Society and the American Friends of Christ Church (Oxford), and on the Advisory Board of First Amendment Voice.

Dr. Lettow received his undergraduate degree in history from Princeton University, a doctorate in international relations from Oxford University (Christ Church), and a law degree from Harvard Law School.



## Vance Serchuk

EXECUTIVE DIRECTOR  
KKR GLOBAL INSTITUTE

Vance Serchuk is the Executive Director of the KKR Global Institute, the geopolitical strategy unit of the international investment firm KKR. In this capacity, Vance works on a range of KKR investments, with a particular focus on defense, national security, and emerging markets. He currently serves on the board of Hensoldt Inc. Vance is also an adjunct senior fellow at the Center for a New American Security. Previously, he served as the senior national security advisor to Senator Joseph Lieberman and as a professional staff member on the Senate Homeland Security and Governmental Affairs Committee. In 2013, he lived in Japan as a Council on Foreign Relations-Hitachi International Affairs

Fellow and was a monthly columnist for the Washington Post. Vance's writings have also appeared in the New York Times, Wall Street Journal, The Atlantic, National Review, and Politico.

Mr. Serchuk is a summa cum laude graduate of Princeton University, holds a JD from Yale Law School, and was a Fulbright scholar in the Russian Federation. He has served for the past 8 years as an officer in the U.S. Navy Reserve.



## Mitchell Shivers

PRESIDENT  
HUGHES+SHIVERS, LLC

Mitchell Shivers is a former Principal Deputy Assistant Secretary of Defense for Asian & Pacific Security Affairs in the Office of the Secretary of Defense (Policy). In that capacity, he was one of the Pentagon's top policy officials developing, implementing, and overseeing policy for the region. Mr. Shivers also served as Acting Assistant Secretary of Defense toward the end of the George W. Bush Administration. Previously, he was Deputy Assistant Secretary of Defense for Central Asia (with policy responsibility for an area that included Afghanistan, Pakistan, and five former Soviet republics). From November 2004 to November 2005, Mr. Shivers was a Senior Advisor and the Economic Sector Chief of

the State Department's Afghanistan Reconstruction Group at the United States Embassy, Kabul, Afghanistan. As such, he was the principal American advisor on economics and finance to several American ambassadors to Afghanistan as well as to the Afghan government.

An international investment banker by profession, Mr. Shivers retired from Merrill Lynch as Managing Director and Head of Global Public Credit Origination in 2002—then the industry's top team in that highly competitive field. Also at Merrill Lynch, Mr. Shivers played a key leadership role earlier in the global initial public offerings of Indonesia's first privatized state-owned enterprises—at the time the largest-ever IPOs to come out of non-Japan Asia. In his almost thirty years in financial services, Mr. Shivers held senior management posts in New York, Chicago, Singapore, Tokyo, London (twice), and Jakarta with Merrill Lynch as well as two British merchant banks, Samuel Montagu and Kleinwort Benson (where he was the first American member of the main board at each bank).

Mr. Shivers is a Distinguished Alumnus, Distinguished Business Alumnus, and former trustee of Monmouth University and attended New York University's Graduate School of Business.





## Roger Zakheim

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Prior to his appointment at the Ronald Reagan Presidential Foundation and Institute, Mr. Zakheim practiced law at Covington & Burling LLP in the firm's Public Policy and Government Affairs practice group, where he served as co-chair. Before joining the firm, he was General Counsel and Deputy Staff Director of the U.S. House Armed Services Committee. In this role, Mr. Zakheim managed the passage of the annual National Defense Authorization Act (NDAA) the annual defense policy bill that authorizes the Defense Department's \$600 billion budget. Mr. Zakheim is currently a Congressionally appointed Commissioner on the Commission on the National Defense Strategy of the

United States. Previously, Mr. Zakheim served as Deputy Assistant Secretary of Defense, where he managed the department's policies and programs related to the Iraq and Afghanistan coalition affairs.

Mr. Zakheim frequently speaks and writes on national security and defense issues. His views have appeared in the Wall Street Journal, New York Times, Politico, National Public Radio, Fox News, CNN, BBC, The Weekly Standard, National Review, among other media outlets.

He received a B.A. from Columbia University, an M. Phil. from the University of Cambridge, and a JD from New York University School of Law.

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