

# THE TECH & SECURITY CONFERENCE

SATURDAY, APRIL 23, 2022



# Welcome to the Tech & Security Conference

**April 23, 2022**

**Hosted by the HBS Aerospace  
& Aviation Club  
and MIT Sloan Defense  
Technology Club**

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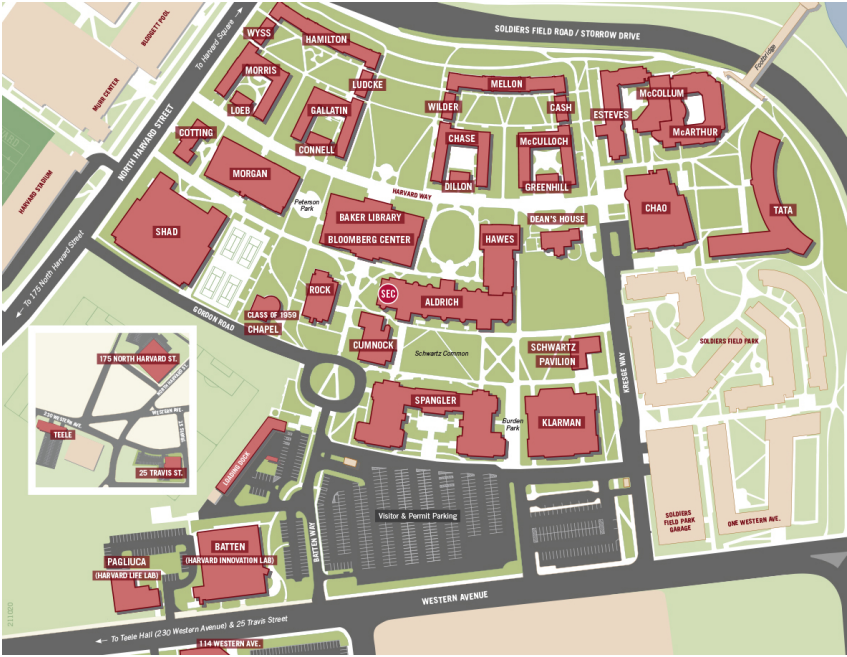


Hosted by  
the HBS  
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Aviation  
Club and  
the MIT  
Sloan  
Defense  
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# General Information

WiFi: Connect to "HBSGUEST"

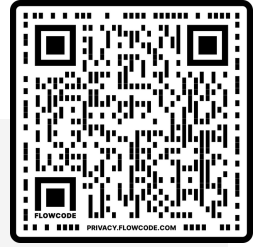
## Map of Harvard Business School Campus



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# Today's Schedule



Scan QR code for map of campus

## **08:30-9:15 AM**

Registration / Light Breakfast

## **9:15-9:45 AM**

Opening (Recorded) Keynote: Technology and National Security

## **10:00-11:15 AM**

Panel: Venture Capital and National Security

## **11:30-12:30 PM**

Breakout Panel 1 - Klarman Hall: Driving the Future of  
Autonomy in Business and Government

Breakout Panel 2 - Aldrich 112: Space: the Role of Government  
in the Final Frontier

## **12:30-1:45 PM**

Lunch (Spangler Main Dining Hall)

## **2:00-3:00 PM**

Breakout Panel 3 - Klarman Hall: Innovating in the Public Sector

Breakout Panel 4 - Aldrich 112: Cybersecurity and Business:  
from Sony to Solarwinds

## **3:15-4:30 PM**

Panel: Technology, National Security, and Democracy

## **4:30-4:45 PM**

Closing and Thank you

## **4:45-6:00 PM**

Social (Spangler Williams Room)

*All events other than the two breakout panels will take place in  
Klarman Hall*



# Today's Panels

## **Panel: Venture Capital and National Security**

As the applicability of commercial technologies to national security continues to grow, so too does the rise of new entrants seeking to tackle the public sector's greatest challenges. Backed in large part by a community of established and new venture capital firms, the role of the private sector in underpinning national security technologies has also evolved greatly. Yet barriers undoubtedly remain in connecting critical national security challenges with leading entrepreneurs and investors. Join Kirsten Bartok Tuow, Steve Bowsheer, Raj Shah and Bilal Zuberi as they discuss where national security investing has come in the past decade of rapid geopolitical and technological changes, and how best to leverage the nations' innovative capacity for our greatest security challenges.

## **Breakout Panel 1: Driving the Future of Autonomy in Business and Government**

Autonomous and artificially intelligent technology is experiencing exponential growth and widespread applicability across countless domains; but such rapid advancement in technology also comes with great responsibility. Businesses and governments alike are working together to deploy autonomous systems to further our capabilities while also grappling with the ethical implications.

Taking these debates under the lens of national security, please join moderator Professor Andy Wu of Harvard Business School in his discussion with Brandon Tseng, Chief Growth Officer at Shield AI; Mark Russell, Chief Technology Officer at Raytheon Technologies; Thom Kenney, Chief Data Officer and Director of AI for U.S. Special Operations Command; and Stuart Wagner, Chief Digital Transformation Officer for the Department of the Air Force.

## **Breakout Panel 2: Space: the Role of Government in the Final Frontier**

Commercial companies, with venture capital funding, are planning Mars missions, fighting space debris, tracking climate change impacts, and pursuing asteroid mining; Space is no longer only for NASA and the DOD. In the New Space economy, Governments will remain the core customer and a critical partner - so what can we learn from history, and how can Government partnership and investment unlock future growth?

## **Breakout Panel 3: Innovating in the Public Sector**

Over the past several years, there's been an explosion of activity to increase innovation for and within the government - from the DARPA to SOFWERX to everything in between. Join Hondo Geurts, Ellen Lord, Colleen Laughlin, and Brooke Stokes as we tackle the major barriers to adopting innovation and maintaining the U.S.'s technological superiority - and celebrate major success stories. This panel will be interactive and discussion based, so come prepared to discuss with our amazing speakers!

## **Breakout Panel 4: Cybersecurity and Business: from Sony to Solarwinds**

Over the last decade, cyberattacks have grown in intensity, sophistication, and scale. Undoubtedly, we've taken our lumps and learned some lessons as a nation dealing with the rise of cyber-enabled threats. How can we continue to apply those lessons toward greater security and resilience across the public and private sectors? What do we each need from each other? Join moderator and Director of the Belfer Center's Cyber Project, Lauren Zabierek in discussion of these important and timely issues with Congressman Mike Gallagher, CISA's Chief of Strategy Policy and Plans, Valerie Cofield, and Citi's Global Head of Threat Intelligence, Janet Rathod.

## **Panel: Technology, National Security, and Democracy**

How is technology re-shaping the traditional roles that commercial companies and government institutions play in securing national security in our modern world? Hear from experts Congressman Seth Moulton, Congressman Mike Gallagher, Undersecretary of Defense for Research and Engineering, Hon. Heidi Shyu, DIU Director, Mike Brown, and Josh Wolfe, Founder and Managing Partner of Lux Capital. This panel will discuss how government policies and programs foster innovation and align incentives with the commercial sector to scale technology rapidly, both within and outside of government domains. How should we structure processes to compete on a global scale where civil-military fusion and exponential technology trends present challenges?

# Meet our planning team



**Mary Helen deGolian**  
HBS MBA 2022



**Andy Franklin**  
HBS / HKS 2023



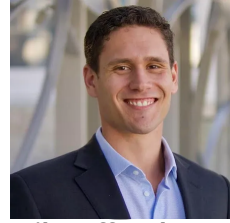
**Andrew Gibbs**  
HBS MBA 2023



**Austin Gray**  
MIT MBA 2023



**Caitlin Haner**  
MIT MBA 2022



**Erik Hoffstadt**  
HBS MBA 2022



**Akhil Iyer**  
HBS / HKS 2022



**Cameron McCord**  
HBS MBA 2022



**Malory McLemore**  
HBS MBA 2022



**Biz Peabody**  
HBS / HKS 2022



**Michelle Volz**  
MIT MBA 2022



**Anne Wen**  
HBS MBA 2022



**Matthew White**  
MIT / HKS 2022



**Clark Yuan**  
MIT / HKS 2022

# Meet our lineup of incredible speakers

## Opening (recorded) Keynote: Tech & Security



### Ash Carter

Ash Carter is currently the Director of the Belfer Center for Science and International Affairs at Harvard University's John F. Kennedy School of Government. At Harvard Kennedy School, he leads the Technology and Public Purpose project and serves as the Belfer Professor of Technology and Global Affairs. He is also an Innovation Fellow and member of the Corporation at MIT. He is currently also a member of the President's Council of Advisors on

Science & Tech and the Secretary of Defense's Defense Policy Board.

Carter served as the 25th United States Secretary of Defense from 2015 to 2017, and previously served as the number two ("COO") and number three ("weapons czar") positions in the Pentagon. For over 35 years inside government under presidents of both political parties as well as in the private sector, Carter leveraged his extensive experience in national security, technology, and innovation to defend the United States and make a better world. He was awarded the Defense Distinguished Service Medal, the Department's highest civilian honor, on five separate occasions.

Carter is author or coauthor of 12 books and more than 100 articles on physics, technology, national security, and management. Carter earned his bachelor's degrees in physics and in medieval history, summa cum laude, at Yale University, where he was also awarded Phi Beta Kappa. He received his doctorate in theoretical physics from Oxford University, where he was a Rhodes Scholar.



### Kathleen Hicks

Dr. Kathleen H. Hicks serves as the 35th Deputy Secretary of Defense; she was sworn into that office on Feb. 9, 2021.

Prior to becoming Deputy Secretary, Dr. Hicks held the position of senior vice president, Henry A. Kissinger Chair, and Director of the International Security Program at the Center for Strategic and International Studies. From 2009 to 2013, she served as a senior civilian official in the Department of Defense.

Confirmed by the United States Senate in 2012 as principal deputy undersecretary of defense for policy, she was responsible for advising the secretary of defense on global and regional defense policy and strategy. She also served as deputy undersecretary of defense for strategy, plans, and forces, leading the development of the 2012 Defense Strategic Guidance and the 2010 Quadrennial Defense Review and crafting guidance for future force capabilities, overseas military posture, and contingency and theater campaign plans.

Prior to becoming the DUSD for SPF, from 2006 to 2009 Deputy Secretary Hicks was a senior fellow at the Center for Strategic and International Studies. Deputy Secretary Hicks launched her career as a civil servant in the Office of the Secretary of Defense, serving from 1993 to 2006 in a variety of capacities and rising from Presidential Management Intern to the Senior Executive Service.

Dr. Hicks holds a Ph.D. in political science from the Massachusetts Institute of Technology, an M.A. from the University of Maryland's School of Public Affairs, and an A.B. magna cum laude and Phi Beta Kappa from Mount Holyoke College.

# Panel: Venture Capital and National Security



## Steve Bowsher

Steve Bowsher serves as President of In-Q-Tel. He previously served as Managing General Partner and Executive Vice President at In-Q-Tel, leading the company's investment strategy since 2006. In addition to approving all deals in partnership with CEO Chris Darby, Bowsher has personally managed In-Q-Tel's relationships with Palantir, Databricks, MongoDB, Anaconda, Initiate Systems, Cleversafe, Cloudera, Immersive Wisdom, Reversing Labs, and others. Bowsher joined In-Q-Tel from InterWest Partners, where he served as General Partner for eight years.

Previously, Bowsher worked at E\*TRADE. During his tenure there, he helped launch Destination E\*TRADE, the company's award-winning website. Bowsher was also an early stage employee at two startup companies, where he was responsible for revenue and distribution targets.

Outside of work, Bowsher supports two terrific not-for-profits making the world a better place, Coaches Across Continents and StreetCode Academy.

Bowsher graduated magna cum laude from Harvard and received his MBA from Stanford.



## Raj Shah

Raj Shah is the co-founder of Shield Capital, an investment firm focused on technologies applicable to both the commercial and defense markets. He is also the chairman of Resilience, a cyber-security start-up. Most recently he was the managing partner of the Pentagon's Defense Innovation Unit Experimental (DIUx), reporting to the Secretary of Defense. Raj led DIUx in its efforts to strengthen U.S. armed forces through contractual and cultural bridges between Silicon Valley and the Pentagon. Previously, Raj was senior director of strategy at Palo Alto Networks, which acquired Morta Security, where he was chief executive officer and co-founder. He began his business career as a consultant with McKinsey & Company.

Raj serves as an F-16 pilot in the US Air Force and has completed multiple combat deployments. He holds an AB from Princeton University and an MBA from the Wharton School at the University of Pennsylvania and is a visiting fellow at the Hoover Institution at Stanford University.



## Kirsten Bartok Touw

Kirsten Bartok Touw has a long history as an aerospace and defense entrepreneur and investor. Since coming to the Silicon Valley in mid 90s to attend Stanford's GSB, she has founded and built companies (XOJET and AirFinance), been an active venture investor both institutional and individual (H&Q and Chase Capital Partners) and in banking (Goldman Sachs), and run strategy and corporate development for the global aircraft manufacturer Hawker Beechcraft where she helped lead their expansion into China. Kirsten has also served as a board member and advisor to numerous technology and service companies during her 20+ years in Silicon Valley. In 2019, she relocated to Washington, DC and now spends the majority of the year there.

In 2017, Kirsten founded I N C Ventures as a vehicle for her numerous early-stage investments. Having personally started, advised and sold multiple companies, she wanted a platform where she and others could leverage her aerospace, investing and tech background. To date, many of her investments have been at the intersection of technology, aerospace and urban mobility, along with enabling technologies. She is currently the founder and Managing Partner of AirFinance Leasing LLC, a firm that specializes in the financing of aerospace assets. She also co-founded and is a Managing Partner of New Vista Capital.

## Panel: Venture Capital and National Security



### **Bilal Zuberi**

Bilal Zuberi is a General Partner at Lux Capital. He is attracted to startups that solve big, practical problems with technically ambitious solutions, across industries (enterprise software, deeptech, healthcare) and stages (from seed to growth). He wants to back founders who are driven to build large sustaining companies, and believes technology can help address some of the world's largest problems.

Bilal led Lux's investments in Applied Intuition, Ironclad, OpenSpace, Nozomi Networks, Commure, Tendo Health, DesktopMetal (\$DM), Evolv (\$EVLV), Aurora Solar, Saildrone, Cloaked, Kyra, Happiest Baby, Zededa, Fiddler, Copia Automation, and others.

Prior to joining Lux, Bilal was a VC at General Catalyst. Before that he was an entrepreneur and co-founded GEO2 Technologies. Earlier in his career, Bilal was a strategy consultant at BCG. Bilal earned a PhD from the Massachusetts Institute of Technology (under Prof. Mario Molina, Nobel laureate, 1995). He also serves on the Advisory Board of the Lemelson Foundation. He is an immigrant citizen in this country, and thankful every day for opportunities that he has been afforded here.

# Breakout Panel 1: Driving the Future of Autonomy in Business and Government



**Thomas Kenney**

Mr. Kenney is a Civilian Senior Executive serving as Chief Data Officer and Director of AI for U.S. Special Operations Command. As a direct report to the Commander, his primary duty is to accelerate digital transformation for the entire Special Operations enterprise through collaborative efforts with industry, academia, the Department of Defense, and other government agencies. Mr. Kenney is a serial entrepreneur as both a Chief Executive Officer and Chief Technology Officer, with deep experience in start-ups and turnarounds. Over the past 20 years, he served on or led senior executive teams and corporate boards that have delivered nearly \$3B in value to

investors and shareholders through multiple exits via acquisition by private equity and Fortune 100 enterprises. Most recently, Mr. Kenney led companies and teams to develop advanced cloud computing applications that employ AI and machine learning techniques for systems that measure in the hundreds of millions of users worldwide.

Mr. Kenney has over two decades of enlisted and officer experience in the Army Reserve and National Guard, including multiple combat deployments to Afghanistan and Africa as a Civil Affairs officer. He has participated in several multinational exercises and taught civil-military techniques globally to foreign partners as a part of NATO education programs. Mr. Kenney also serves as a technical advisor and board member within the Department of Defense and industry focusing on developing cloud, data, and AI capabilities. Mr. Kenney holds a Master of Science in Computer Science with research on interactive intelligence from Georgia Tech and a Master of Business Administration from the University of Notre Dame.



**Mark Russell**

Mark E. Russell leads Technology & Global Engineering for Raytheon Technologies. He guides the company's overall technological vision and strategy, including its engineering operations and its investments in research and development.

Russell, who has a background in electrical and computer engineering, has extensive technological leadership experience in aerospace and defense. Most recently he led the Engineering, Technology & Mission Assurance organization for Raytheon Company prior to its merger with United Technologies

Corporation in 2020. Before that, he was vice president of engineering at Raytheon Integrated Defense Systems, and he has worked in design engineering, operations, field testing and project and program management for multiple state-of-the-art radar, communications and missile systems.

Russell has published 16 peer-reviewed papers and holds 36 patents in the areas of microwave and millimeter wave components, high-range resolution radar applications and missile seekers. He was elected to the National Academy of Engineering in 2020 for his leadership in developing radar systems for enhanced national security and safety. He has been appointed to the Defense Science Board and has been named a fellow by both the American Institute of Aeronautics and Astronautics, and the Institute of Electrical and Electronics Engineers. Russell serves on the boards of trustees for Worcester Polytechnic Institute and the Joslin Diabetes Center, and he is a board member and past chairman of the National Action Council for Minorities in Engineering. He holds a master's degree in electrical and computer engineering from the University of Massachusetts Amherst, a bachelor's degree in electrical engineering from the University of Massachusetts Lowell and an honorary doctorate in engineering from the University of Massachusetts Amherst.

# Breakout Panel 1: Driving the Future of Autonomy in Business and Government



## Brandon Tseng

Brandon Tseng is the Chief Growth Officer at Shield AI. Brandon has focused on operationalizing AI for Maneuver capabilities for the warfighter and engaging the warfighter on product requirements to ensure that significant, game-changing value is delivered. Prior to Shield AI, Brandon served as a Navy SEAL with two deployments to Afghanistan and one to the Pacific Theater. His experiences in combat and his deep understanding of the spectrum of military operations help drive the CONOP-based design thinking and product development at Shield AI. Previously, he was the assistant chief engineer aboard the USS Pearl Harbor (LSD-52) and deployed to the Persian Gulf. He earned his Mechanical Engineering degree from the U.S. Naval Academy and his MBA from Harvard Business School.



## Stuart Wagner

Stuart Wagner is the Chief Digital Transformation Officer for the Department of the Air Force, comprised of the U.S. Air Force and U.S. Space Force. On behalf of the Chief Information Officer, Mr. Wagner promotes innovation and digital transformation to enable warfighters globally, helps build the digital workforce, and implements artificial intelligence and autonomous capabilities. His areas of interest include telemetry instrumentation, collection, unification and analysis, natural language processing, and improving partnerships between the venture community and government.

Mr. Wagner began his career as the Aide De Camp to the CEO and COO of Berico Technologies, a defense contractor focused on data fusion. He then enlisted in the U.S. Army, and attended Officer Candidate School. While there, he broke three ribs on an obstacle course and continued training for weeks while hurt, eventually resulting in an honorable discharge. Mr. Wagner then learned to code and became a Software Developer at Microsoft. There, he instrumented and analyzed telemetry data from Windows Devices at billion+ user scale to improve reliability and Azure subscriptions to improve revenue growth. At a Microsoft hackathon, he helped prototype a sex trafficking disruption application that won the competition and now is used by over 12 US cities to reduce the supply and demand of sex trafficking. Returning to the Department of Defense in 2019 to work as a Senior Advisor to the Chief Data Officer of the Department of Defense, Mr. Wagner built and ran a team of 50+ engineers to run Development and Engineering for Advana, an analytics platform at OUSD(C), and start Gamechanger, an open-source natural language processing and search platform that enables text analytics on policy documents, DoD contracts, and communications traffic among other use cases. Mr. Wagner is an active angel and venture investor, and serves on the board of a charitable foundation.

Mr. Wagner received a Bachelor of Arts degree triple-majoring in Political Science, Arabic, and Organizational Studies from the University of Michigan, a Master of Science in Public Policy and Administration from the London School of Economics and Political Science, and a Master of Science degree in Computer Science from the University of Pennsylvania.

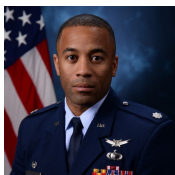
## Breakout Panel 2: Space: Accelerating and Investing in the final Frontier



### **Orin Hoffman**

Orin is a Partner on the investment team at The Engine where he is also Head of Government Partnerships. He serves as a Board Member for RISE Robotics, Hedron, and Sync Computing. Orin was most recently a senior government civilian at the Defense Innovation Unit Experimental where he served in both investment and CTO roles. Prior to DIUx, Orin spun out and served as Chief Technologist at Endeavor Robotics, which was later acquired by FLIR systems.

Orin started his career in R&D at iRobot, where he led the development and deployment of robotic systems to various disaster and conflict responses. Orin holds BA and MS degrees in Physics and Electrical Computer Engineering as well as several patents.

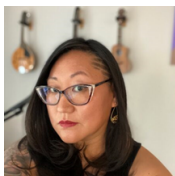


### **Lt. Col. Rock McMillan**

Lt Col Walter "Rock" McMillan is the Director of SpaceWERX. Lt Col McMillan entered the Air Force in 2003 through the University of Southern California ROTC program. He has served in a variety of program management and staff positions within Air Force Materiel Command, Pacific Air Forces, Air Force Space Command, and Office of the Assistant Secretary of the Air Force for Acquisition. He served as a Program Element Monitor for Military Satellite

Communications programs and as Congressional Liaison Officer, House Division, Office of Legislative Liaison.

Prior to returning to Los Angeles AFB, Lt Col McMillan attended the Air Officer Commanding Master's Program in Colorado Springs, Colorado. He then became the Air Officer Commanding for Cadet Squadron 22 at the United States Air Force Academy in Colorado Springs, Colorado.



### **Sarah Mineiro**

Sarah Mineiro currently works at Anduril Industries as the senior director for space strategy. Sarah has worked within the national security and defense sector for over 15 years. Previously, Sarah was the Staff Lead for the Strategic Forces Subcommittee for the House Armed Service Committee (HASC). She led the Subcommittee's legislative and oversight activities of all Department of Defense and Military Intelligence Program space programs, U.S. nuclear

weapons, missile defense, directed energy, and hypersonic systems. Sarah was the senior legislative advisor to Ranking Member Mac Thornberry on all strategic forces issues. In this role she was the primary drafter and negotiator of the Space Force and Space Command legislation for the House Republicans. Prior to joining the HASC, Sarah served in the Office of the Under Secretary of Defense for Policy (OSDP) in Nuclear and Missile Defense, Koreas, Brazil, and Space Policy offices. At OSDP she was responsible for the development and implementation of several international strategies, negotiation of international agreements, as well as planning, programming, budgeting, and execution of Defense of Defense programs.

She previously served in the Office of the Under Secretary of the Air Force for International Affairs (SAF/IA) as an international affairs specialist. At SAF/IA she was responsible for the development and implementation of the Air Force's international engagement strategy for space. Sarah started her career as an intelligence analyst for the National Air and Space Intelligence Center in Dayton, Ohio. She was the lead employment analyst on foreign counterspace systems including space situational awareness sensors, directed energy, and kinetic kill vehicle systems.

Sarah holds a Masters in Public and International Affairs and a Bachelor of Arts in Political Science from the University of Pittsburgh. Sarah has served on the Defense Innovation Board Space Advisory Committee, on the Board of Directors for the United States Space Force Association, and volunteers as an Executive Mentor to the Zed Factor Fellowship.



## Breakout Panel 3: Innovating in the Public Sector



### Hondo Guerts

Secretary James Geurts, known to most as Hondo, is known for his ability to rapidly field emerging technologies, deliver outcomes at scale, inspire teams, and develop diverse talent. Most recently, he performed the duties of the Under Secretary of the Navy, where he served as the Chief Operating Officer and Chief Management Officer for the Department of the Navy and was responsible for the effective global business operations of the over 1 million person/\$200B+ US Navy and US Marine Corps team. After his unanimous Senate confirmation in 2017 and until 2021, he served as Assistant Secretary of the Navy for Research, Development & Acquisition, where he was responsible for overseeing a budget in excess of \$140B annually.

Before coming to the Navy, Hondo served as the U.S. Special Operations Command Acquisition Executive during a period of unprecedented operational tempo worldwide. Beginning his career as an officer in the U.S. Air Force and retiring as a Colonel after 22 years of service, he is the founder of SOFWERX, Naval X, and the Ghost Mentor Program, all of which have been emulated across the DoD and other Federal agencies as a means to drive innovation into large public sector organizations.

Hondo has been recognized nationally and internationally by private and public institutions for his leadership, innovation, and service including award of the Navy's Distinguished Public Service Medal (twice), the Federal Times Vanguard Award for Executive of the Year, the United States Special Operations Command Medal and Colors, the French Legion d' Honneur (Knight), the Presidential Rank Award, the William Perry Award, the Rylander Award, the Raduege Award, and the Defense Superior Service Medal. His innovative practices have been documented and referenced in numerous books and publications, including an active Harvard Business School case study and CNN specials. Hondo is an endurance sport enthusiast, having completed multiple Ironman races, marathons, and endurance swims.



### Colleen Laughlin

Colleen is an advisor to the Department of Defense Chief Technology Officer (CTO), focused on building and leveraging innovation capacity across the Department and with the private sector. Colleen serves as the Executive Director of the Defense Innovation Board, a group of distinguished private sector experts that advises the Secretary of Defense and senior leaders on how to accelerate innovation across the Department's strategy, operations, process, technology, talent, and culture. She recently completed a detail as a member of the Department's core writing team for the 2022 National Defense Strategy.

Prior to joining the CTO's team, Colleen served as Special Assistant to Secretary Mattis. In this role, she provided policy advice recommendations on key national security issues, drawing on her time in the Office of the Under Secretary of Defense for Policy, where she focused on issues such as Asia regional policy, NATO, technology transfer/export controls, foreign mergers and acquisitions, international humanitarian policy, Congressional affairs, and the interagency. Previous assignments in the Department include Chief of Staff, Asian & Pacific Security Affairs; Senior Advisor, International Humanitarian Policy; and Director for Asia, Defense Technology Security Administration.

Ms. Laughlin holds a master's degree in international relations from the University of Florida, and dual bachelor's degrees in economics and political science from Auburn University.

## Breakout Panel 3: Innovating in the Public Sector



### Ellen Lord

Ellen Lord's career has spanned national security corporate and government leadership after initially focusing on automotive technology and manufacturing. With CEO-level strategic and operational experience, seasoned business acumen, operational and technology know-how, and a track record of recruiting, compensating, developing and retaining critical talent, Ellen fundamentally understands how products and services are successfully sold to government customers, both domestically and internationally.

Over 30 years of experience in the defense industry includes serving as President and Chief Executive Officer of Textron Systems Corporation, a subsidiary of Textron Inc. from 2012-2017. In this role, she led a multi-billion dollar business with a broad range of products and services supporting defense, homeland security, aerospace, infrastructure protection, and customers around the world. Her prior roles at Textron include Senior Vice President and General Manager of Textron Defense Systems, now Weapon & Sensor Systems; and Senior Vice President and General Manager of AAI Corporation, now known as Textron Systems' Electronic Systems, Support Solutions, and Unmanned Systems businesses.

From 2017-2021, Ellen served as the first U.S. Under Secretary of Defense for Acquisition and Sustainment, leading the Department of Defense's personnel, policy and processes for acquisition of products and services, lifecycle sustainment and the security and resiliency of the defense industrial base. Ellen is credited in her government work for driving significant acquisition policy change focused on simplicity and speed. She implemented procedures that recognize major platforms and weapon systems are hardware enabled yet software defined. Additionally, she is recognized for addressing cyber vulnerabilities and incorporating an aggressive cybersecurity posture into acquisition policy. Ellen also focused on a high level of communication with all stakeholders as well as strengthening human capital. During her time with the Department of Defense, she developed strong relationships with Congressional members in both a bipartisan and bicameral manner. She holds TS and SCI security clearances.

After leaving her Department of Defense role in January 2021, Ellen established EML Enterprises, LLC, providing advisory services that leverage her industry and government experience. Ellen serves on the Board of Directors for AAR Corporation, Voyager Space Holdings, and GEOST and is a Senior Fellow at Johns Hopkins Applied Physics Laboratory while advising a number of aerospace, defense, and industrial companies. She is the former Vice Chairman of the National Defense Industrial Association and served as a Director of the U.S. - India Business Council. Additionally, Ellen served on the Task Force providing guidance for the Center for a New American Security (CNAS) "Future Foundry: Forging New Industries for Defense" project which was formed to examine key technological trends and challenges facing the global defense industry and served as the foundation for many of her acquisition reforms while at DoD. Ellen also served as a Trustee on the Board of the U.S. Naval Institute Foundation.

Ellen earned a Master of Science degree in Chemistry from the University of New Hampshire and a Bachelor of Arts degree in Chemistry from Connecticut College.



### Brooke Stokes

Brooke is a Southern California based leader in McKinsey's Aerospace & Defense practice, working with clients on space, defense, and national security engagements. She has led efforts with clients across the A&D value chain, including primes, disruptors, innovation organizations, and investors. Her focus is on growth strategy, innovation, and transactions related work. For instance, she has led work with defense tech and space disruptors on growth strategy and advised clients on how to foster public / private sector

collaboration to fuel ecosystem development.

Brooke also has been a key leader of McKinsey's A&D collaborations with institutions such as the Aerospace Industries Association and the World Economic Forum, and has published on topics such as space funding trends and evolution in sources of R&D spend.

## Breakout Panel 4: Cybersecurity and business: from Sony to Solarwinds



### Valerie Cofield

Valerie M. Cofield serves as the Chief Strategy Officer of the Department of Homeland Security's (DHS) Cybersecurity and Infrastructure Security Agency (CISA). Ms. Cofield serves as the principal policy and strategic adviser to CISA leadership and senior management, integrating strategy across all the organization's mission areas and ensuring policy, strategy, and operational consistency throughout the agency. Prior to CISA, Ms. Cofield served at the FBI for 22 years in a variety of roles. She was a Deputy Assistant Director (DAD) for the Cyber Capabilities Branch within the Federal Bureau of Investigation's (FBI) Cyber Division where she led coordination and deployment of the division's technical tools and capabilities, and oversaw cyber-related training, recruiting, hiring, and budgeting for the division. She also served in a senior executive role as chief of staff of the Science and Technology Branch and as a DAD of the Digital Transformation Office (DTO), where she engaged with interagency partners and other key stakeholders on policy issues related to current and emerging technologies and their impact on law enforcement.

In 2019, Ms. Cofield was selected as the FBI's senior detail to the Cyberspace Solarium Commission. This Congressional Commission was authorized through the FY2019 National Defense Authorization Act (NDAA). Its mission was to develop a national strategy for preventing cyberattacks of significant consequences. While on the Commission, Ms. Cofield was a Senior Director and Task Force Lead. The Commission completed its report in March of 2020 with over 75 recommendations, 25 of which were included in the FY21 NDAA and enacted into law. Ms. Cofield holds a bachelor's degree in Economics with a minor in Accounting from UCLA.



### Janet Rathod

Janet Rathod currently serves as the Global Head of Cyber Threat Intelligence at Citigroup Inc. where she leads cyber intelligence collection, analysis and partner engagement across multiple global teams. She is responsible for cyber intelligence production at the tactical, operational and strategic level. She also serves as a liaison to the U.S. Intelligence Community. Janet is a member of the Board of Directors for the Intelligence National Security Alliance (INSA) and the FBI Association of Intelligence Analysts (FBI AIA).

Prior to Citi, Janet served as Senior Director, Cyber Operations and Intelligence at Capital One Financial Corporation where she led Log Management, Perimeter Defense, Anti Money Laundering reporting, Third Party Intelligence Assessments, Highly Sensitive Document controls, and Cyber Fraud Intelligence. Janet represented Capital One on the advisory board for the non-profit organization Cybercrime Support Network, and served as the leadership sponsor for Women in Cyber.

Prior to Capital One, Janet served for 16 years in the Federal Bureau of Investigation (FBI). She was a member of the Senior Executive Service, where she governed the intelligence program for 56 Field Offices and four operational divisions. Janet also served as an Executive Manager at the Washington Field Office with oversight over Cyber and Counterintelligence Intelligence Analysts. During her tenure at the FBI, Janet completed overseas tours to Iraq and Afghanistan, and was instrumental in building the FBI's information-sharing component for the Counterterrorism Division. While serving in the FBI, Janet led intelligence training programs for Fortune 500 companies, including Disney, Sony, United Parcel Service and Western Union.

Janet earned a master's degree in Public Administration from New York University and a bachelor's degree in Political Science from Nebraska Wesleyan University. She studied abroad at the American University in Cairo, Egypt, and Gujarat University in Ahmedabad, India. She is a Public Policy and International Fellow and Presidential Management Fellow.

In her spare time, Janet enjoys gardening, cooking, and overseas travel. She is passionate about the field of Intelligence Analysis and volunteers her time mentoring young professionals.

## Breakout Panel 4: Cybersecurity and business: from Sony to Solarwinds



### Rep. Mike Gallagher

Congressman Mike Gallagher has represented Wisconsin's 8th District in the U.S. House of Representatives since 2017. Mike was born and raised in Green Bay, where he now lives with his wife Anne and daughter Grace.

Mike served for seven years on active duty in the United States Marine Corps, including two deployments to Iraq. Mike also served as the lead Republican staffer for the Middle East and Counterterrorism on the Senate Foreign Relations Committee and worked in the private sector at an energy and supply chain management company in Green Bay.

Mike earned a bachelor's degree from Princeton University, a master's degree in Security Studies from Georgetown University, a second in Strategic Intelligence from National Intelligence University, and a PhD in International Relations from Georgetown.

Mike currently serves on the House Armed Services Committee, where he is the Ranking Member on the Subcommittee on Military Personnel, the House Permanent Select Committee on Intelligence, and the Transportation and Infrastructure Committee. From 2019-2021 he served as Co-Chairman of the Cyberspace Solarium Commission.



### Lauren Zabierek

Lauren Zabierek is the Executive Director of the Cyber Project at Harvard Kennedy School's Belfer Center. She comes to this role as a 2019 graduate of the Kennedy School's mid-career MPA program. Here, she runs a policy-relevant cybersecurity and technology policy research program with students and nonresident fellows. Her work focuses on strategic, national security issues in cyber and tech--ranging from international conflict, cooperation, and norms to domestic collaboration, diversity, privacy, and supply chain issues. She is also the first woman participant in the Elbe Group discussions on cybersecurity, having been a part of the cyber-focused dialogue in 2019 in Stockholm, Sweden and again in 2021 virtually.

Lauren is the co-founder of the online social media movement called #ShareTheMicInCyber, which aims to dismantle racism in cybersecurity and privacy. #ShareTheMicInCyber started as an online conversation on Twitter and LinkedIn but has become so much more--it is breaking down barriers in the cyber industry through individual and collective action. Since its inception, the movement has garnered over 100 million Twitter impressions and featured participation by the nation's cyber leaders.

Lauren served as an intelligence officer in the United States Air Force at the beginning of her career. Later, as a civilian intelligence analyst with the National Geospatial Intelligence Agency (NGA) assigned to the Office of Counterterrorism, she completed three war zone deployments. Throughout her six years at NGA, she became a subject matter expert on Activity Based Intelligence (ABI) and served as an adjunct professor in ABI at the NGA college. After leaving NGA, she joined the cybersecurity threat intelligence startup Recorded Future, and was instrumental in building its Public Sector business practice. In her role as a Senior Intelligence Analyst, she fused intelligence methodologies with cybersecurity and machine learning technologies to help public and private sector customers improve their cyber posture. She also managed a team of analysts and worked alongside the Product Management and Training teams to improve her customers' experience with the software.

A Gold Star Sister, Lauren is committed to supporting families of the fallen and has volunteered several times as a mentor with the Tragedy Assistance Program for Survivors (TAPS). She also co-founded the Recorded Future Women's Mentorship Initiative, helped to start a women's initiative at NGA, and is a member of the NatSecGirlSquad. She is also a Visiting Fellow at George Mason University's National Security Institute and a Nonresident Fellow at New America. She has appeared on television, radio, and numerous podcasts.

# Technology, National Security, and Democracy



## **Mike Brown**

Michael Brown is the Director of the Defense Innovation Unit (DIU) at the U.S. Department of Defense. DIU, established in 2015, fields leading-edge commercial capabilities to the military faster and more cost-effectively than traditional defense acquisition methods. With offices in Silicon Valley, Boston, Austin, and at the Pentagon, DIU is embedded in key innovation ecosystems across the country and builds direct relationships with organizations that strengthen our national security innovation base.

Previously, Michael served two years (2016-2018) as a White House Presidential Innovation Fellow at DoD. He is the co-author of a Pentagon study on China's participation in the U.S. venture ecosystem, a catalyst for the Foreign Investment Risk Review Modernization Act (FIRRMA). FIRRMA was signed into law in August 2018 and provided expanded jurisdiction to the Committee on Foreign Investment in the United States (CFIUS).

Additionally, he led the initiative for a new Defense Department-sponsored investment vehicle, National Security Innovation Capital (NSIC) to fund dual-use hardware technology companies. Through August of 2016, Michael was the CEO of Symantec Corporation, the global leader in cybersecurity and the world's 10th largest software company with revenues of \$4 billion and more than 10,000 employees worldwide. Michael served as a member of Symantec's Board since its merger with Veritas in 2005. During his tenure as CEO (2014-2016), Michael led a turnaround developing a strategy focusing on its security business, sold its Veritas storage software business, hired a new executive leadership team and improved operating margins 300 basis points. Additionally, he led the articulation of a new company culture fostering innovation.

Michael is the former Chairman & CEO of Quantum Corporation (1995-2003), a leader in the computer storage industry. As CEO of Quantum, the company achieved record revenues of \$6 billion as the world's leader in disk drives for personal computers and the world's largest tape drive business. He joined Quantum in 1984 and served on its Board from 1995 until 2014.

After leaving Quantum, Michael served as Chairman of EqualLogic, a storage array company. Dell acquired EqualLogic in 2008 for \$1.4 billion, the largest all-cash deal for a venture-backed company up to that time. He has been a member of the Board of Trustees of the Berklee College of Music in Boston since 2013 and previously served on the President's Advisory Council.

Michael received his BA degree in economics from Harvard University in 1980 and his MBA degree from Stanford University in 1984.



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# Technology, National Security, and Democracy



## Hon Heidi Shyu

Ms. Heidi Shyu is the Under Secretary of Defense for Research and Engineering (OUSDR&E). In this role, she serves as the Chief Technology Officer for the Department of Defense (DoD), mandated with ensuring the technological superiority of the U.S. military, and is responsible for the research, development, and prototyping activities across the DoD enterprise. She also oversees the activities of the Defense Advanced Research Projects Agency (DARPA), the Missile Defense Agency (MDA), the Defense Innovation Unit (DIU), the Space Development Agency (SDA), the DoD Laboratory and Engineering Center enterprise, and the Under Secretariat staff focused on developing advanced technology and capability for the U.S. military.

Previously, she served as the Assistant Secretary of the Army for Acquisition, Logistics and Technology (ASA(ALT)), from September 2012 to January 2016. Prior to this, she was Acting ASA(ALT) beginning in June 2011 and appointed the Principal Deputy in November 2010. As the ASA(ALT), she served as the Army Acquisition Executive, the Senior Procurement Executive, the Science Advisor to the Secretary of the Army, and the Army's Senior Research and Development official. She had principal responsibility for all Department of the Army matters related to logistics. Ms. Shyu also led the execution of the Army's acquisition function and the acquisition management system. Her responsibilities included providing oversight for the life cycle management and sustainment of Army weapons systems and equipment from research and development through test and evaluation, acquisition, logistics, fielding, and disposition.

Prior to her government service, Ms. Shyu was the Vice President of Technology Strategy for Raytheon Company's Space and Airborne Systems. Ms. Shyu holds a Bachelor of Science Degree in Mathematics from the University of New Brunswick (UNB) in Canada, a Master of Science Degree in Mathematics from the University of Toronto, Master of Science Degree in System Science (Electrical Engineering) from UCLA, and the Engineer Degree from UCLA. She received an Honorary Doctorate of Science from the UNB. She is also a graduate of the UCLA Executive Management Course Program.

A member of the Air Force Scientific Advisory Board from 2000 to 2010, she served as the Vice Chairman from 2003 to 2005 and Chairman from 2005 to 2008. Ms. Shyu is a member of the National Academy of Engineering and AIAA Honorary Fellow.



## Josh Wolfe

Josh co-founded Lux Capital to support scientists and entrepreneurs who pursue counter-conventional solutions to the most vexing puzzles of our time in order to lead us into a brighter future. The more ambitious the project, the better - like, say, creating matter from light.

Josh is a Director at Shapeways, Strateos, Lux Research, Kallyope, CTRL-labs, Variant, and Varda, and helped lead the firm's investments in Anduril, Planet, Echodyne, Clarifai, Authorea, Resilience and Hadrian. He is a founding investor and board member with Bill Gates in Kymeta, making cutting-edge antennas for high-speed global satellite and space communications. Josh is a Westinghouse semi-finalist and published scientist. He previously worked in investment banking at Salomon Smith Barney and in capital markets at Merrill Lynch. In 2008 Josh co-founded and funded Kurion, a contrarian bet in the unlikely business of using advanced robotics and state-of-the-art engineering and chemistry to clean up nuclear waste. It was an unmet, inevitable need with no solution in sight. The company was among the first responders to the Fukushima Daiichi disaster. In February 2016, Veolia acquired Kurion for nearly \$400 million—34 times Lux's total investment.

Josh is a columnist with Forbes and Editor for the Forbes/Wolfe Emerging Tech Report. He has been invited to The White House and Capitol Hill to advise on nanotechnology and emerging technologies, and a lecturer at MIT, Harvard, Yale, Cornell, Columbia and NYU. He is a term member at The Council on Foreign Relations and Chairman of Coney Island Prep charter school, where he grew up in Brooklyn. He graduated from Cornell University with a B.S. in Economics and Finance.

# Notes

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the post-conference  
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