



NDIA EMERGING
TECHNOLOGIES
INSTITUTE



THE MODERNIZATION QUANDARY

A NDIA ETI Online Workshop

June 7, 2021 | Virtual | [NDIA.org/ETIWebinar](https://www.ndia.org/ETIWebinar)

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WHO WE ARE

NDIA's Emerging Technologies Institute (NDIA ETI) is a non-partisan institute focused on technologies that are critical to the future of national defense. NDIA ETI provides research and analyses to inform the development and integration of emerging technologies into the defense industrial base.

Building on NDIA's reputation of an honest broker serving national security and ultimately our warfighters, ETI pulls together cross-sectoral teams of members, government officials, and other essential partners to address a carefully curated set of technology issues at any given time. ETI also draws on NDIA's 100 annual events, more than 1,500 corporate members, and more than 63,000 individual members to build research teams that are adapted according to the nature of the technology in question. These teams generate and disseminate a range of high-quality research products and recommendations with the goal of framing the debate over a particular issue and/or advocating for actions that might accelerate the development and deployment of these technologies.

WELCOME TO THE MODERNIZATION QUANDARY

Welcome to the Modernization Quandary, the first workshop in what will be an ongoing series of activities focusing on the challenges and opportunities associated with accelerating the delivery of emerging technologies to our nation's warfighters. This event is hosted by the National Defense Industrial Association's newly formed Emerging Technologies Institute (ETI). The mission of ETI is to serve as a non-partisan research center focused on the technologies that are critical to the future of national defense, and we cannot think of a more significant topic with which to launch this new enterprise.

Our hope for this workshop is to begin a reasoned discussion that the national security community needs to have but is not yet having. Much has been written and said about the need for the Department of Defense to remain at the forefront of technological innovation—and to do so at a pace that will allow us to deter our rapidly advancing peer competitors. Yet, for a number of perfectly valid reasons, the Department has deferred major acquisition programs such that they will be experiencing simultaneous funding demands over the next decade. The quandary, then, is that DoD doesn't seem to have enough money to do all the things required for Nuclear

Modernization, an expanded U.S. Navy fleet, a Next-Generation Air Dominance platform, and other modernization priorities—not to mention delivering hypersonic weapons at scale, enabling artificial intelligence, advanced electronic warfare, new directed energy systems, and so on. And, given both the unlikelihood of significant budget increases and the desire to sustain legacy systems, the Department of Defense simply doesn't have a program plan that would seem to close the existing gaps.

During this workshop, we will explore solutions to this quandary from a technology development, process, and legislative perspective. We'll begin with a panel on technology options and priorities that will include some of our nation's leading thinkers on emerging needs before moving into a panel of top thought leaders addressing what might be done to speed up acquisition, align funding, and allow more options in shorter order. We'll end the day with a discussion among distinguished experts on legislative solutions and constraints.

On behalf of our speakers and the NDIA team, we thank you for your interest in this topic and look forward to your engagement!

Dr. Mark Lewis
Executive Director
NDIA Emerging Technologies Institute

Hon. Alan Shaffer
Distinguished Visiting Fellow
NDIA Emerging Technologies Institute

EVENT INFORMATION

SURVEY AND PARTICIPANT LIST

You will receive via email a survey and list of participants (name and organization) after the conference. Please complete the survey to make our event even more successful in the future.

EVENT CONTACTS

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AGENDA

1:00 – 1:05 pm

All times are listed in
Eastern Daylight Time

WELCOME AND INTRODUCTORY REMARKS

Gen Hawk Carlisle, USAF (Ret)

President and Chief Executive Officer, National Defense Industrial Association (NDIA)

1:05 – 1:30 pm

THE MODERNIZATION QUANDARY

Hon. Alan Shaffer

Distinguished Visiting Fellow, NDIA Emerging Technologies Institute (NDIA ETI)

1:30 – 2:00 pm

OPENING KEYNOTE

Hon. James “Hondo” Geurts

Performing the Duties of the Under Secretary of the Navy, U.S. Navy

2:00 – 2:55 pm

EMERGING TECHNOLOGIES AND THE MODERNIZATION QUANDARY: SETTING PRIORITIES

Dr. Mark Lewis

Executive Director, NDIA ETI
Moderator

Dr. Eric Evans

Director, MIT Lincoln Laboratories

Dr. Dana “Keoki” Jackson

Senior Vice President and General Manager, National Security Sector, MITRE

Nicole Petta

Principal Director, Microelectronics, Office of the Under Secretary of Defense for Research & Engineering

2:55 – 3:10 pm

BREAK

3:10 – 4:05 pm

ACQUISITION PROCESSES AND THE NEED TO SPEED DELIVERY

Hon. Alan Shaffer

Distinguished Visiting Fellow, NDIA ETI

Moderator

Hon. Kevin Fahey

President and Chief Operating Officer, Cypress International

Elaine McCusker

Resident Fellow, American Enterprise Institute

Katherina McFarland

Former Assistant Secretary of Defense for Acquisition and Acting Assistant Secretary of the Army for Acquisition, Logistics, & Technology

4:05 – 5:00 pm

OVERSIGHT AND APPROPRIATIONS: PERSPECTIVES FROM CAPITOL HILL

Gen Hawk Carlisle, USAF (Ret)

President and Chief Executive Officer, NDIA

Moderator

Paul Arcangeli

Staff Director, House Armed Services Committee

Dr. William Greenwalt

Visiting Fellow, American Enterprise Institute

Kate Käufer

Professional Staff Member, Senate Appropriations Committee

5:00 – 5:05 pm

CLOSING REMARKS

Dr. Mark Lewis

Executive Director, NDIA ETI

NDIA has a policy of strict compliance with federal and state antitrust laws. The antitrust laws prohibit competitors from engaging in actions that could result in an unreasonable restraint of trade. Consequently, NDIA members must avoid discussing certain topics when they are together at formal association membership, board, committee, and other meetings and in informal contacts with other industry members: prices, fees, rates, profit margins, or other terms or conditions of sale (including allowances, credit terms, and warranties); allocation of markets or customers or division of territories; or refusals to deal with or boycotts of suppliers, customers or other third parties, or topics that may lead participants not to deal with a particular supplier, customer or third party.



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BIOGRAPHIES



HON. JAMES "HONDO" GEURTS

Performing the Duties of Under Secretary of the Navy, U.S. Navy

James F. Geurts was designated as performing the duties of the Under Secretary of the Navy Feb. 4, 2021. In this position, he serves as the deputy and principal assistant to the Secretary of the Navy, as well as the Chief Operating Officer and Chief Management Officer for the Department of the Navy. Additionally, he oversees intelligence activities, intelligence-related activities, special access programs, critical infrastructure, and sensitive activities within the department.

He has over 30 years of extensive joint acquisition experience and served in all levels of acquisition leadership positions including Acquisition Executive, Program Executive Officer, and Program Manager of Major Defense Acquisition Programs.

Secretary Geurts previously served as Assistant Secretary of the Navy for Research, Development & Acquisition (ASN (RD&A)), from December 2017 to January 2021. As the Navy's acquisition executive, Geurts had oversight of an annual budget in excess of \$100 billion, ensuring procurement of platforms, systems and technologies designed to enhance the readiness and operability of Sailors and Marines serving around the globe in defense of the nation. Geurts previously served as the U.S. Special Operations Command (USSOCOM) Acquisition Executive, at MacDill Air Force Base (AFB), Florida, where he was responsible for all special operations forces acquisition, technology and logistics. During this time frame he was recognized by both private and public institutions, earning the Navy Distinguished Public Service Medal, Presidential Rank Award, USSOCOM Medal, William Perry Award and Federal Times Vanguard Award for Executive of the Year.

Prior to Senior Executive Service, Secretary Geurts served as an officer in the U.S. Air Force, retiring after 22 years of service. While in uniform, he served as an acquisition program manager with engineering and program management leadership positions in numerous weapon systems throughout his career.

Geurts is a distinguished 1987 ROTC graduate from Lehigh University where he received a Bachelor of Science in Electrical Engineering. He holds a Master of Science in Electrical Engineering from Air Force Institute of Technology, Wright-Patterson AFB, and in National Security Resourcing from Industrial College of the Armed Forces, National Defense University, Washington, DC. Mr. Geurts also attended executive leadership and international studies programs at the Harvard Kennedy School and the George Washington University Elliott School.

EMERGING TECH HORIZONS

A National Security Podcast with Dr. Mark Lewis

This brand-new podcast invites you to listen in on conversations with Dr. Mark Lewis, the Executive Director of NDIA's Emerging Technologies Institute, as he welcomes a diverse slate of national security leaders from government, industry, and academia to discuss the defense technologies of today and tomorrow. Each episode takes a deep dive as the experts share their personal views on future technology topics, providing listeners with unique perspectives on the latest in emerging technologies and how they relate to national security. Listen to Emerging Tech Horizons where you find all your favorite podcasts.

NDIAETI.org/Podcast

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HON. ALAN SHAFFER

Distinguished Visiting Fellow, NDIA Emerging Technologies Institute

Mr. Alan R. Shaffer served as the Deputy Under Secretary of Defense for Acquisition and

Sustainment (A&S) from January 2019 to January 20, 2021. Senate confirmed in January 2019, he was responsible to the Under Secretary of Defense (A&S) for all matters pertaining to acquisition; contract administration; logistics and materiel readiness; installations and environment; operational energy; chemical, biological, and nuclear weapons; the acquisition workforce; and the defense industrial base.

From 2015 to 2018, Mr. Shaffer served as the Director, NATO Collaboration Support Office, in Neuilly-sur-Seine, France. In this role, he was responsible for coordinating and synchronizing the Science and Technology (S&T) collaboration between NATO member and partner nations, comprising a network of about 5,000 scientists.

Previous to his role at NATO, Mr. Shaffer served as the Principal Deputy Assistant Secretary of Defense for Research and Engineering (ASD(R&E)) from 2007 to 2015. In this position, Mr. Shaffer was responsible for formulating, planning, and reviewing the DoD Research, Development, Test,

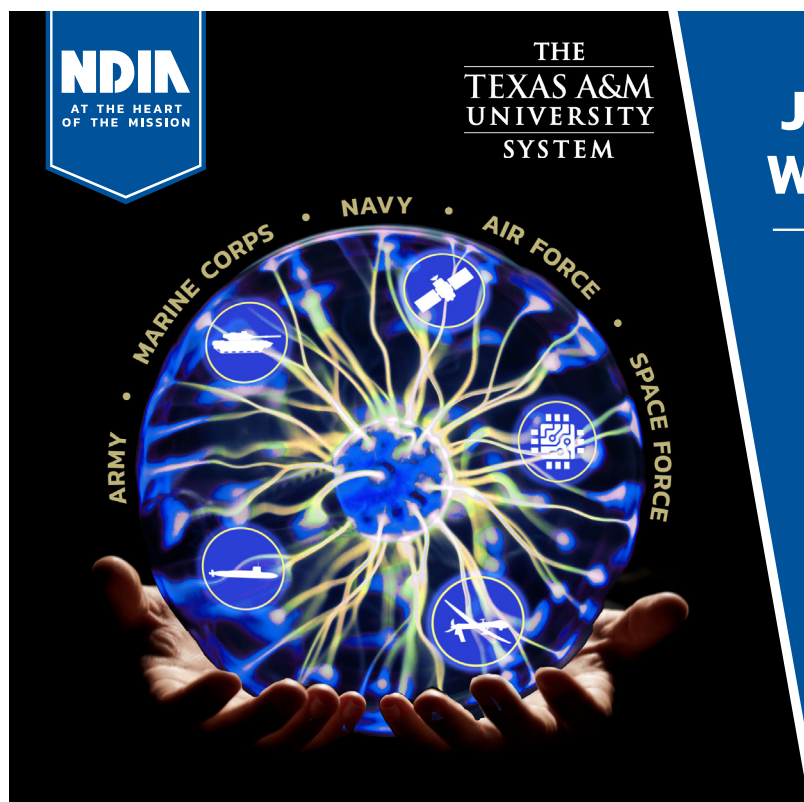
and Evaluation (RDT&E) programs, plans, strategy, priorities, and execution of the DoD RDT&E budget that totals roughly \$25 billion per year. He also served twice as the Acting Assistant Secretary of Defense for Research and Engineering from 2007 to 2009 and 2012 to 2015.

In 2009, he was appointed as the first Director, Operational Energy, Plans and Programs (Acting). Mr. Shaffer has also served as the Executive Director for several senior DoD Task Forces, including review of all research, acquisition, and test activities during the 2005 Base Realignment and Closure. In 2007, he was the Executive Director for the DoD Energy Security Task Force and, from 2007 to 2012, he served as the Executive Director of the Mine Resistant Ambush Protection (MRAP) Task Force, where he was responsible for oversight, fielding and employment of 27,000 MRAPs across the Department of Defense.

Before entering the federal government, Mr. Shaffer served 24 years as a commissioned officer in the United States Air Force and retired in the grade of Colonel. While serving, he held positions in command, weather, intelligence, and acquisition oversight with assignments in Utah, California, Ohio, Honduras, Germany, Virginia, and Nebraska.

His military career included deployments to Honduras in the mid-1980s and direct support of the United States Army, 3rd Armored Division in Hanau, Germany. During Operation DESERT STORM, he was responsible for deployment of the 500-person theater weather force and, upon retirement from the Air Force in 2000, Mr. Shaffer was appointed to the Senior Executive Service. In 2001, he assumed the position as Director, Plans and Programs, Defense Research and Engineering.

Mr. Shaffer earned a Bachelor of Science in Mathematics from the University of Vermont in 1976, a second Bachelor of Science in Meteorology from the University of Utah, a Master of Science in Meteorology from the Naval Postgraduate School, and a Master of Science in National Resource Strategy from the Industrial College of the Armed Forces. He was awarded the Secretary of Defense Medal for Outstanding Public Service, the Meritorious Executive Presidential Rank Award in 2004, the Department of Defense Distinguished Civilian Service Award, and the Distinguished Executive Presidential Rank Award in 2007 and 2015.



JADC2 & ALL DOMAIN WARFARE SYMPOSIUM

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July 12 – 14, 2021 | College Station, TX
[NDIA.org/JADC2](https://ndia.org/JADC2)