

# 2022 BREAKTHROUGH ENERGETICS

Advancing Energetics for Strategic Superiority

May 4 – 5 | Purdue University | West Lafayette, IN | [NDIA.org](https://www.ndia.org)

# TABLE OF CONTENTS

SCHEDULE AT A GLANCE ..... 2

EVENT INFORMATION ..... 4

AGENDA ..... 5

THANK YOU TO OUR SPONSORS . . 12

VENUE MAP ..... 13

BIOGRAPHIES ..... 14

# NDIA

## WHO WE ARE

The National Defense Industrial Association is the trusted leader in defense and national security associations. As a 501(c)(3) corporate and individual membership association, NDIA engages thoughtful and innovative leaders to exchange ideas, information, and capabilities that lead to the development of the best policies, practices, products, and technologies to ensure the safety and security of our nation. NDIA's membership embodies the full spectrum of corporate, government, academic, and individual stakeholders who form a vigorous, responsive, and collaborative community in support of defense and national security. For more than 100 years, NDIA and its predecessor organizations have been at the heart of the mission by dedicating their time, expertise, and energy to ensuring our warfighters have the best training, equipment, and support. For more information, visit [NDIA.org](http://NDIA.org)



## WHO WE ARE

The Emerging Technologies Institute is a research organization dedicated to advancing technologies critical to our economy and national defense. As part of a nonpartisan 501(c)(3) organization, ETI bridges the gap between industry, academia and government by conducting rigorous analysis, brokering collaborative partnerships, serving as a convening authority, and creating access to expertise on issues of defense modernization, and technological superiority. For more information, visit [EmergingTechnologiesInstitute.org](http://EmergingTechnologiesInstitute.org)

## JOIN THE CONVERSATION



@NDIAToday



@NDIAMembership



NDIA.org/LinkedIn



@NDIAToday



@NDIAToday



# SCHEDULE AT A GLANCE

## WEDNESDAY, MAY 4

### Registration

Purdue Memorial Union, 2<sup>nd</sup> Floor  
7:00 am - 5:30 pm

### Sessions

Loeb Playhouse, Stewart Center  
8:00 am - 3:30 pm

### Concurrent Breakout Sessions

3:30 - 5:30 pm  
Fowler Hall and Loeb Playhouse, Stewart Center

### Networking and Dinner

Purdue Memorial Union North Ballroom  
5:30 - 8:00 pm

## THURSDAY, MAY 5

### Registration

Purdue Memorial Union, South Ballroom  
7:00 am - 5:00 pm

### Sessions

Fowler Hall, Stewart Center  
8:00 am - 5:15 pm

## WHO WE ARE

Purdue University is a top public research institution developing practical solutions to today's toughest challenges. Ranked the No. 6 Most Innovative University in the United States by U.S. News & World Report, Purdue delivers world-changing research and out-of-this-world discovery. Committed to hands-on and online, real-world learning, Purdue offers a transformative education to all. Committed to affordability and accessibility, Purdue has frozen tuition and most fees at 2012-13 levels, enabling more students than ever to graduate debt-free. See how Purdue never stops in the persistent pursuit of the next giant leap at [Purdue.edu](http://Purdue.edu)



## WHO WE ARE

ETC provides engineering and data analytics services, policy development, and technology development to the government, academia, and private industry.

We are a 501 (c)(3) non-profit organization incorporated in 2006 to support national military policy development projects. Our team looks for opportunities to conduct impactful work for the Defense Department, State, Regional, and Local government, and the private sector. At ETC, we proudly support the United States National Security Enterprise as an innovation catalyst and a partnership facilitator to our clients. Visit us at [etcmd.com](http://etcmd.com)

# EMERGING TECH HORIZONS

**ETI** EMERGING  
TECHNOLOGIES  
INSTITUTE

## An ETI Podcast

Listen in as our nation's security experts share their personal takes on the latest defense technology.

Hosted by our resident expert Dr. Mark Lewis, Executive Director of NDIA's new Emerging Technologies Institute, our brand-new podcast takes a deep dive into how technology will shape the future of warfare.

[EmergingTechnologiesInstitute.org/Podcast](http://EmergingTechnologiesInstitute.org/Podcast)



# EVENT INFORMATION

## LOCATION

Purdue University  
100 North Grant Street  
West Lafayette, IN 47907

## WIFI

Network: ATT Wifi  
Click on pop-up and select "Get Connected"

## ATTIRE

Civilian: Business  
Military: Uniform of the Day

## 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 CONTACT

**Kimberly Hurley**  
Director, Meetings  
(703) 247-9494  
[khurley@NDIA.org](mailto:khurley@NDIA.org)

## SPEAKER GIFTS

In lieu of speaker gifts, a donation is being made to the Fisher House Foundation.

## HARASSMENT STATEMENT

NDIA is committed to providing a professional environment free from physical, psychological and verbal harassment. NDIA will not tolerate harassment of any kind, including but not limited to harassment based on ethnicity, religion, disability, physical appearance, gender, or sexual orientation. This policy applies to all participants and attendees at NDIA conferences, meetings and events. Harassment includes offensive gestures and verbal comments, deliberate intimidation, stalking, following, inappropriate photography and recording, sustained disruption of talks or other events, inappropriate physical contact, and unwelcome attention. Participants requested to cease harassing behavior are expected to comply immediately, and failure will serve as grounds for revoking access to the NDIA event.

## EVENT CODE OF CONDUCT

NDIA's Event Code of Conduct applies to all National Defense Industrial Association (NDIA), National Training & Simulation Association (NTSA), and Women In Defense (WID) meeting-related events, whether in person at public or private facilities, online, or during virtual events. NDIA, NTSA, and WID are committed to providing a productive and welcoming environment for all participants. All participants are expected to abide by this code as well as NDIA's ethical principles and practices. Visit [NDIA.org/CodeOfConduct](https://www.ndia.org/CodeOfConduct) to review the full policy.

## ANTI-TRUST STATEMENT

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.

# AGENDA

**WEDNESDAY, MAY 4**

7:00 am – 5:30 pm

## **REGISTRATION**

PURDUE MEMORIAL UNION BUILDING, EAST AND WEST FACULTY LOUNGES, 2<sup>ND</sup> FLOOR

7:00 am – 8:00 am

## **NETWORKING BREAKFAST**

PURDUE MEMORIAL UNION BUILDING, EAST AND WEST FACULTY LOUNGES, 2<sup>ND</sup> FLOOR

8:00 am – 8:30 am

## **WELCOME**

LOEB PLAYHOUSE, STEWART CENTER

### **Dr. Mark Lewis**

Executive Director of Emerging Technologies Institute, NDIA

### **Mitchell E. Daniels, Jr.**

President, Purdue University

### **COL Santee Vasquez, USA**

Commander, Crane Army Ammunition Activity

8:30 am – 9:30 am

## **THE IMPORTANCE OF ADVANCING ENERGETICS**

LOEB PLAYHOUSE, STEWART CENTER

### **Ashley Johnson**

Technical Director, Naval Surface Warfare Center Indian Head Division

*Introduction*

### **ADM Harry Harris, USN (Ret)**

Former Commander, U.S. Pacific Command; Former U.S. Ambassador to the Republic of Korea

9:30 am – 10:15 am

## **THE WHY: THE NATIONAL ENERGETICS STUDY**

LOEB PLAYHOUSE, STEWART CENTER

### **Robert Kavetsky**

Chief Executive Officer, Energetics Technology Center

*Moderator*

### **Michael Holthe**

Director, Platforms and Weapons Technologies Office of the Director for Defense Research and Engineering (R&T), Under Secretary of Defense for Research and Engineering

### **Dr. Theresa Mayer**

Executive Vice President for Research and Partnerships, Purdue University

### **The Hon. Katharina McFarland**

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

10:15 am – 11:15 am

## ESTABLISHING NATIONAL ADVOCACY & A WHOLE OF GOVERNMENT APPROACH

LOEB PLAYHOUSE, STEWART CENTER

### Joan Johnson

Former Deputy Assistant Secretary of the Navy for Research, Development, Test & Engineering  
*Moderator*

### Stephen (Steve) Ham

Senior Defense Policy Advisor and Professional Staff Member to Senator Ben Cardin, the Senate Small Business Committee Chairman

### Joel Carney

Assistant Administrator for Office of Strategic Infrastructure, NASA

### Tom Russell

Former Deputy Assistant Secretary of the Army for Research and Technology

### The Hon. Todd Young

Member of U.S. Senate for Indiana

11:15 am – 12:15 pm

## NETWORKING LUNCH

PURDUE MEMORIAL UNION BUILDING, EAST AND WEST FACULTY LOUNGES, 2<sup>ND</sup> FLOOR



## Today's Leader in Foundational Energetic Processing Technology

- Primed to develop Critical Technologies to Achieve Energetic Materials Processing Needs
- Has Established Significant Presence in Energetics Processing in 13 Countries
- Responsive to Advanced Energetic Product Requirements
- Single Technology Platform Enables the Manufacture over a Broad Range of Energetic Materials
- Offers Technologies Applicable for R&D through Pilot and Production Scales



Continuous RAM 5 H



Continuous OmniRAM H



Call or email for your copy of:

**"Advances in Energetic Materials Processing Enabled by ResonantAcoustic® Mixing"**



LabRAM II H



OmniRAM H



RAM 5 H



RAM 55 H



Resodyn Acoustic Mixers, Inc. Butte, MT 59701 [info@resodyn.com](mailto:info@resodyn.com) 406-497-5333 [www.resodynmixers.com](http://www.resodynmixers.com)

12:15 pm – 1:00 pm

## THE PATH FORWARD

LOEB PLAYHOUSE, STEWART CENTER

### Dr. Steven G. Wax

Principal Deputy, Director of Defense Research and Engineering for Research and Technology and the Acting Director of Defense Research and Engineering for Research and Technology in the OUSD(R&E)

1:00 pm – 2:00 pm

## PRIME THE PIPELINE: S&T/R&D LANDSCAPE

LOEB PLAYHOUSE, STEWART CENTER

### Dr. Mark Lewis

Executive Director of Emerging Technologies Institute, NDIA  
*Moderator*

### Kathleen Bubniak

Energetics and Warheads Directorate Science and Technology Associate US Army, DEVCOM Armaments Center

### Mike Lindsay

Technical Advisor, Energetic Materials Branch, Ordnance Division, Munitions Directorate, Eglin Air Force Base

### John Fischer

Former Technical Director, Technology Centers Division, US Department of Homeland Security

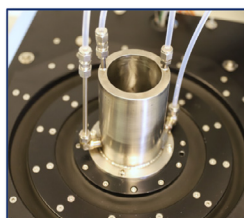
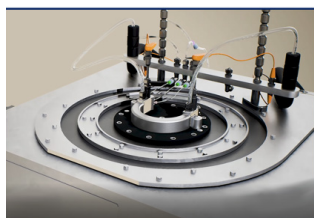


## Tomorrow's Leader in Advanced Energetic Materials Processing Technology

- Develops Unique Technologies Driven by Warfighter Demands
- Responsive to Defense Industry Needs by Providing Leading-Edge Processing Equipment
- Configures Agile Continuous Chemical and Crystallization Processing Systems for Energetics
- Develops Scalable Continuous Processing Methods from Bench to Pilot to Production
- Focuses on the Discovery of Advanced Methods for Continuous Manufacture of Energetic Materials
- Currently Developing Bench-Scale Acoustic Micro-Chemical Reactor and Crystallization Systems



OmniRAM H



**Resodyn Acoustic Mixers Innovative Energetic Chemical and Crystallization equipment under development**



Resodyn Acoustic Mixers, Inc. Butte, MT 59701 [info@resodyn.com](mailto:info@resodyn.com) 406-497-5333 [www.resodynmixers.com](http://www.resodynmixers.com)



# NDIA | CAREER CENTER

---

## Connecting Talent with Great Opportunities – NDIA Career Center

The National Defense Industrial Association offers qualified defense and national security professionals and employers an intuitive platform to identify the next best opportunity or candidate.

### Looking for the Right Candidate?

Interested in a better way to engage with and recruit qualified defense and national security professionals? NDIA's new online career center will make searching for candidates easier.

### Looking for the Right Job?

Looking for your next career opportunity? The NDIA Career Center is your solution.

**Complete your profile today at [Jobs.NDIA.org](https://Jobs.NDIA.org)**





2:00 pm – 3:00 pm

**PRIME THE PIPELINE: THE ROLE OF INDUSTRY AND SMALL BUSINESS**

LOEB PLAYHOUSE, STEWART CENTER

**Jason Jouet**

Director of Munitions, Office of the Under Secretary of Defense for Research and Engineering (OUSD(R&E))  
*Moderator*

**Charlie Zisette**

Executive Director, National Armaments Consortium

**Robert (Bob) Pulver**

General Manager, St. Marks Powder, General Dynamics

**Mike Ervin**

Director of Research & Development, Ordnance Systems, BAE Systems

**Dr. Paritosh R. Dave**

Senior Program Manager, Leidos

3:00 pm – 3:30 pm

**NETWORKING BREAK**

WEST FOYER, STEWART CENTER

3:30pm – 5:30pm

These next two hours contain concurrent sessions split between Classified and Unclassified Sessions.

**CONCURRENT BREAKOUT SESSIONS**

3:30 pm – 4:30 pm

**Global Threat Assessment, Operational Realities and Scenario Implications (Classified Session)**

FOWLER HALL, STEWART CENTER

**MG William Hix, USA (Ret)**

Director of Strategy, Plans & Policy, Deputy Chief of Staff G-3/5/7, Headquarters, Department of the Army (HQDA)  
*Moderator*

**Tony Garcia**

Military Operations Analyst, Systems Planning and Analysis, Inc (SPA)

**Timothy Walton**

Fellow at Hudson Institute, Center for Defense Concepts and Technology

**Impact of Adjacent Technologies on Energetics: Additive Manufacturing, Artificial Intelligence/Machine Learning, Autonomous Systems, and Continuous Process, Bio Synthesis (Unclassified Session)**

LOEB PLAYHOUSE, STEWART CENTER

**William Durant**

Director of Energetics, Energetics Technology Center  
*Moderator*

**Suhithi M. Peiris**

Principal Scientist, Energetics, Advanced Mission Solutions, Battelle

**Dr. T. Yong Han**

Group Leader, Functional Material Synthesis & Integration, Material Science Division, Lawrence Livermore National Laboratory

**Patrick Carrick**

Former Chief Scientist, DHS S&T Director & Former Director, HSARPA

**Jill Smith**

Former Director, US Army Communications Electronics Research, Development & Engineering Center

4:30pm - 5:30pm

### **Perspective of Technology and System Gaps (Classified Session)**

FOWLER HALL, STEWART CENTER

#### **MG William Hix, USA (Ret)**

Director of Strategy, Plans & Policy, Deputy Chief of Staff G-3/5/7, Headquarters, Department of the Army (HQDA)  
*Moderator*

#### **Dr. Alfred G. Stern**

Chief Scientist for Energetic Materials Naval Surface Warfare Center Indian Head Division

#### **Matthew Cerone**

Energetic Materials Analyst, National Space and Intelligence Center

#### **Daniel Carreno**

Executive Director, Naval Air Warfare Center Weapons Division, China Lake

### **Intelligence Lite – Threat Summary (Unclassified Session)**

LOEB PLAYHOUSE, STEWART CENTER

#### **Tony Garcia**

Military Operations Analyst, Systems Planning and Analysis, Inc (SPA)

5:30pm – 8:00pm

### **NETWORKING AND DINNER: LESSONS FROM HISTORY AND A LOOK AT THE PATH AHEAD**

PURDUE MEMORIAL UNION, NORTH BALLROOM

#### **Marcus Jones**

Professor, United States Naval Academy  
*Introduction*

#### **Tim Barrick**

Director of Wargaming, Krulak Center for Innovation & Future Warfare, Marine Corps University

## **THURSDAY, MAY 5**

7:00 am – 5:30 pm

### **REGISTRATION**

PURDUE MEMORIAL UNION, SOUTH BALLROOM

7:00 am – 8:00 am

### **NETWORKING BREAKFAST**

PURDUE MEMORIAL UNION, SOUTH BALLROOM

8:00 am - 8:45 am

### **DEFENSE ACQUISITION PERSPECTIVE**

FOWLER HALL, STEWART CENTER

#### **Christopher C. O'Donnell**

Deputy Assistant Secretary of Defense for Platform and Weapon Portfolio Management

8:45 am – 9:45 am

## **ENERGETIC BUSINESS MODEL**

FOWLER HALL, STEWART CENTER

### **Jim Thomsen**

President, Seaborne Defense; Former Principal Civilian Deputy Assistant Secretary of the Navy for Research, Development, and Acquisition

*Moderator*

### **Bob Wardle**

Principal, Wardle Enterprises; Former Senior Director of Advanced Programs, Northrop Grumman

### **Ashley Johnson**

Technical Director, Naval Surface Warfare Center Indian Head Division

### **Chris Grassano**

Deputy Program Executive Officer, Joint Program Executive Office Armaments and Ammunition

### **Greg Quarles**

Chief Operations Officer, Applied Energetics

9:45 am – 10:45 am

## **PRIVATE/PUBLIC PARTNERSHIPS AND VENTURE CAPITAL**

FOWLER HALL, STEWART CENTER

### **Jose Gonzalez**

Former Acting Deputy Assistant Secretary of Defense for Tactical Warfare Systems

*Moderator*

### **Dr. Robert Ivester**

Deputy Director, Hollings Manufacturing Extension Partnership Program NIST

### **Lee A. Silvestre**

Naval X Northeast Tech Bridge Coordinator, 401 Tech Bridge

### **Richard Dunn**

Founder, Strategic Institute for Innovation in Government Contracting

10:45 am – 11:00 am

## **NETWORKING BREAK**

WEST FOYER, STEWART CENTER

11:00 am – 12:00 pm

## **CREATING A STATE-OF-THE-ART, RESILIENT AND AGILE ENERGETICS MANUFACTURING AND SUPPLY CHAIN CAPABILITY**

FOWLER HALL, STEWART CENTER

### **Dr. Christine (Chris) Michienzi**

Chief Technology Officer for the Deputy Assistant Secretary of Defense (DASD) for Industrial Policy

*Moderator*

### **Jay Brannam**

Executive Director, Munitions Industrial Base Task Force

### **Dr. Shawn Phillips**

Chief, Rocket Propulsion Division, AFRL

### **Anthony Di Stasio**

Director, Defense Production Act, Title III, Office of the Secretary of Defense Acquisition and Sustainment

### **Dan Hartman**

Director, Business Development, Spectra Technologies LLC

12:00 pm – 1:15 pm

## **LUNCHEON KEYNOTE: STRATEGIC PERSPECTIVE OF THE UNITED STATES' DEFENSE INDUSTRIAL BASE**

PURDUE MEMORIAL UNION, SOUTH BALLROOM

### **Norm Thomas**

Civilian Executive Assistant, Crane Army Ammunition Activity

*Introduction*

### **Dr. Christine (Chris) Michienzi**

Chief Technology Officer for the Deputy Assistant Secretary of Defense (DASD) for Industrial Policy

1:15 pm – 1:45 pm

## **SERVICE ACQUISITION PERSPECTIVE**

FOWLER HALL, STEWART CENTER

### **BG Heath A. Collins, USAF**

Program Executive Officer for Weapons and Director of the Armament Directorate, Air Force Life Cycle Management Center, Air Force Materiel Command, Eglin Air Force Base

1:45 pm – 2:45 pm

## **ADDRESSING OPERATIONAL & REQUIREMENT GAPS**

FOWLER HALL, STEWART CENTER

### **David Jimenez**

Former Executive Technical Director / Deputy to the Commander at U.S. Army Test and Evaluation Command (ATEC)

*Moderator*

### **Bruce Simpson**

Vice President, Integrated Solutions for Systems; Former Executive Director of AF Air Armament Center

### **Mike VandenBoom**

Director of Agile Acquisition, Air Force Lifecycle Management Center Armament Directorate

### **Tracy Sheppard**

Director of Lethality, DEVCOM-ARL

### **Bob Bowen**

Former Chief of Soldier and Ground Analysis Division for US Army CCDC Data and Analysis Center

2:45 pm – 3:00 pm

## **NETWORKING BREAK**

WEST FOYER, STEWART CENTER

3:00 pm – 4:00 pm

## **CREATING THE ENERGETICS WORKFORCE OF THE FUTURE**

FOWLER HALL, STEWART CENTER

### **Tom Russell**

Former Deputy Assistant Secretary of the Army for Research and Technology

*Moderator*

### **Dr. Jagadeesh Pamulapati**

Director, Defense Laboratories Office, Office of Assistant Secretary of Defense for Research & Engineering

### **Mary Ann Pacelli**

Division Chief, Network Learning and Strategic Competitions

### **Tony Denhart**

Executive Vice President, Workforce and Talent, Indiana Economic Development Corporation

4:00 pm – 5:00pm

## PRIME THE PIPELINE: THE ROLE OF UNIVERSITIES CASE STUDIES

FOWLER HALL, STEWART CENTER

### Dr. Mung Chiang

Executive Vice President Strategic Initiatives and John A. Edwardson Dean of the College of Engineering, Purdue University  
*Introduction*

### Dr. Steve Beaudoin

Director, Purdue Energetics Research Center & Professor of Chemical Engineering  
Moderator

### Dr. Peter Chung

Professor of Mechanical Engineering, University Maryland

### Dr. Michelle Pantoya

J. W. Wright Regents Chair in Mechanical Engineering and Professor, Texas Tech

### Dr. Steve Son

Alfred J. McAllister Professor of Mechanical Engineering, Purdue University

5:00pm – 5:15pm

## CLOSING REMARKS

FOWLER HALL, STEWART CENTER

### Robert Kavetsky

Chief Executive Officer, Energetics Technology Center

# THANK YOU TO OUR SPONSORS



Next Offset Solutions Inc. is an engineering and technical services provider with prototype and limited-run production capacity. The company's core focus area lies at the nexus of additive manufacturing and energetic materials (encompassing propellants, pyrotechnics, and explosives) making it well suited to address emergent technical challenges that arise in the national security, defense, and energy sectors. Next Offset Solutions' competency stems from its seasoned leadership team, each of whom have a distinct background in business, research and development, and technology transition, as well as its broad portfolio of proprietary technologies.



Level 6 Engineering LLC is an innovative technical solution provider for industry and the defense and national security sectors, driving positive impact on the future of our country and our community as a woman-owned small business. By combining focused technical expertise with a business mindset, and leveraging an extensive professional network, Level 6 Engineering enables rapid technical advancement in a number of areas of national importance. Key areas of technical expertise include: Dynamics and Vibration; Material Characterization; Energetic Materials; Electromechanical Systems; Nonlinear Systems; Sensors and Actuators; Additive Manufacturing.



Hanley Industries was incorporated in 1958 by explosive and pyrotechnic personnel from Atlas Powder Co., Olin's Explosives Division, and the Armament Division of Universal Match Corp. The founders quickly brought together associates who had, in combined years, more knowledge and history in the field of explosives and pyrotechnics than most other companies existing at the time.

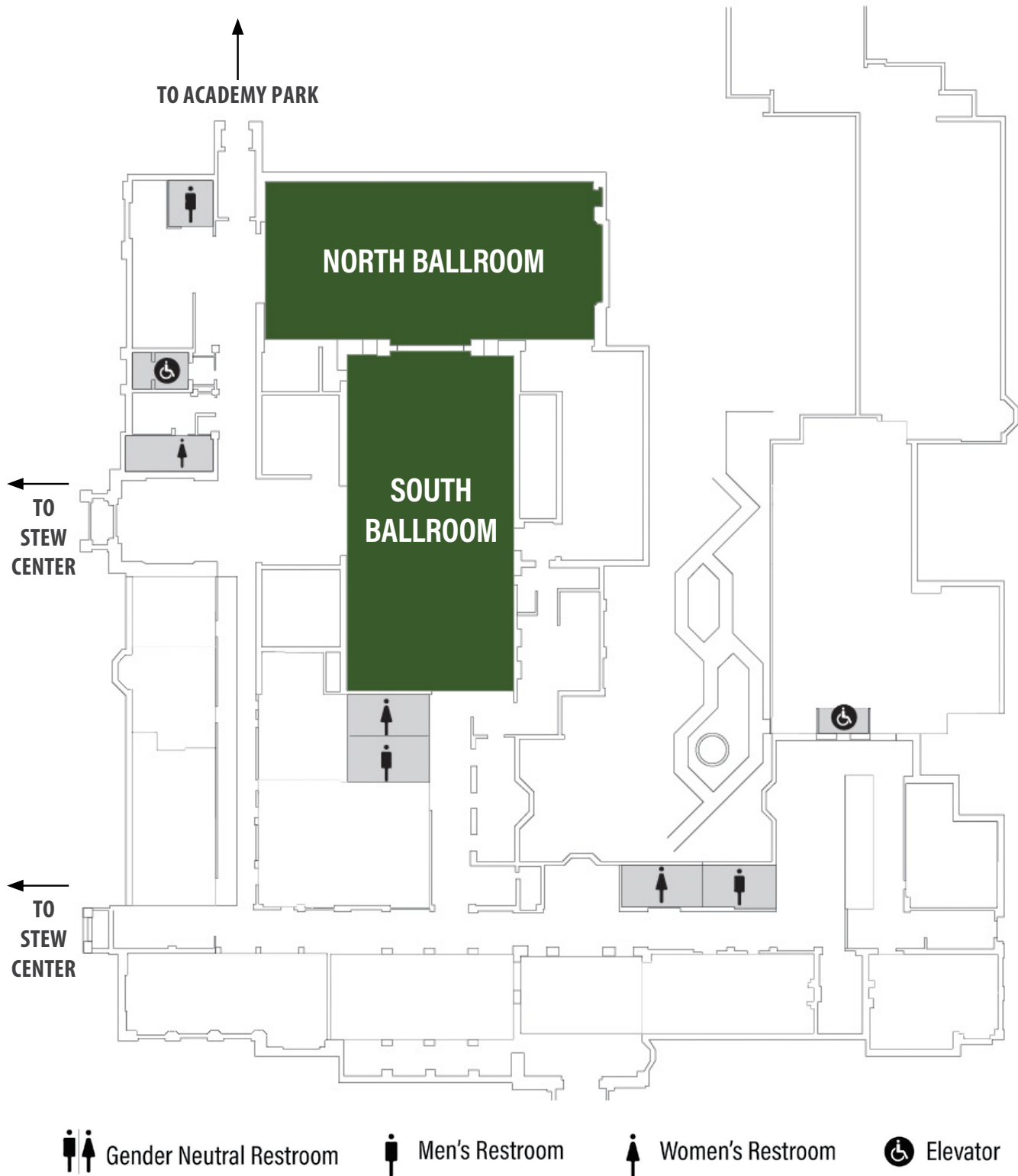
Today Hanley is located in Alton, Illinois, U.S.A, 25 minutes from St. Louis Lambert International Airport. The facility covers 78 acres and includes 70,000 square feet of manufacturing space, plus 19 magazines. Additional off-site magazines provide nearly 150,000 lbs of 1.1 explosive storage capacity. Hanley is very proud to produce energetic parts for all its customers.

**The Hanley Mission Statement:** Our mission is to build trusting relationships with our customers and suppliers. Our focus is dedicated to growth in the field of energetics and safe, on time deliverables to our DoD and International Allied forces along with our Commercial based customers.

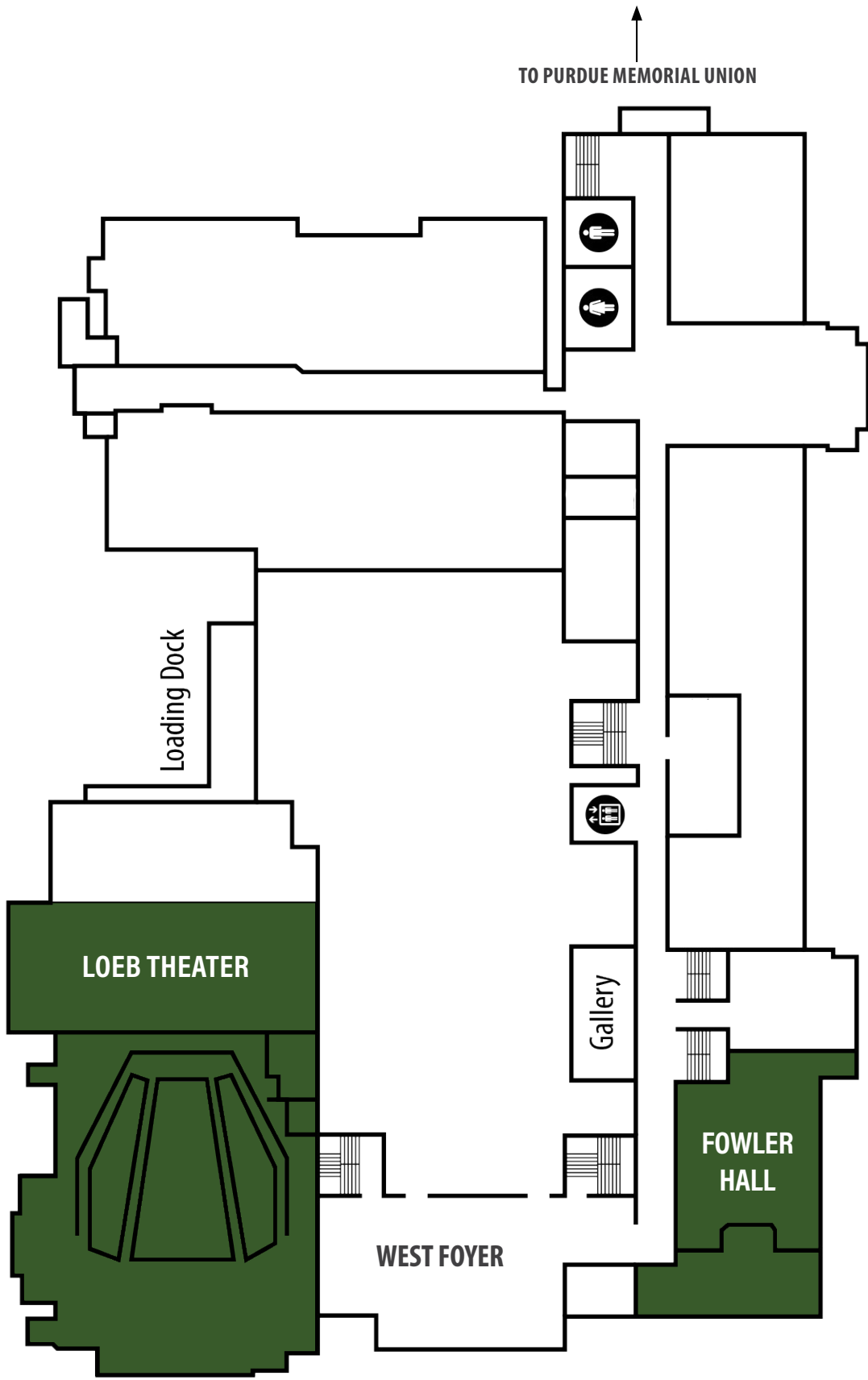
**The Hanley Quality Policy:** The staff and management of Hanley Industries Inc. are committed to the consistent provision of quality products and services that will satisfy the demands and expectations of customers by continual improvement of the Quality Management System in accordance with statutory and regulatory compliance.

# VENUE MAPS

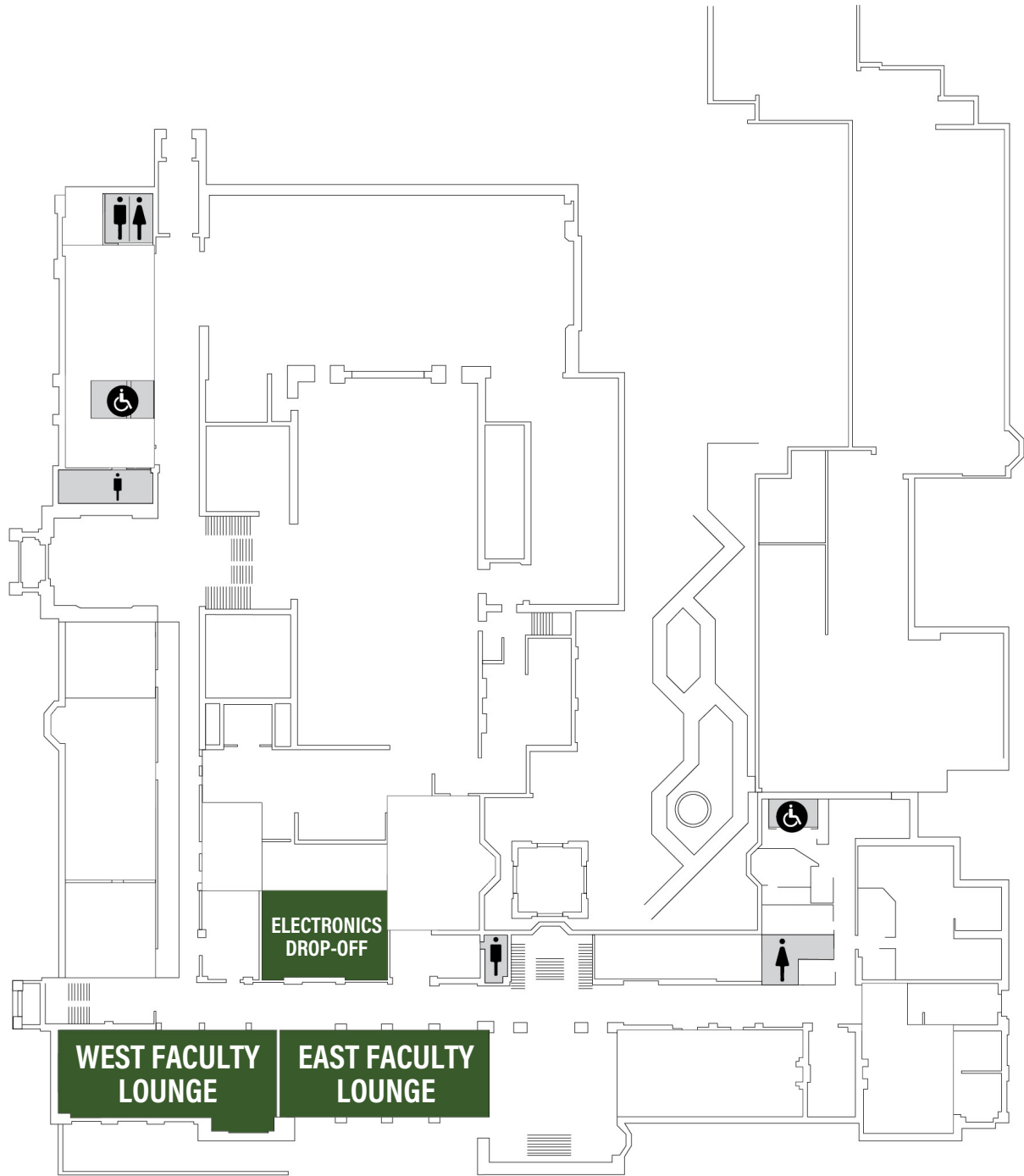
## PURDUE MEMORIAL UNION, FIRST FLOOR



**STEWART CENTER, MAIN LEVEL**



# PURDUE MEMORIAL UNION, SECOND FLOOR



-  Gender Neutral Restroom
-  Men's Restroom
-  Women's Restroom
-  Elevator



# BIOGRAPHIES



## MITCHELL E. DANIELS, JR.

*12<sup>th</sup> President of Purdue University*  
Former governor of Indiana.

former governor of Indiana.

He was elected Indiana's 49th governor in 2004 in his first bid for any elected office, and then re-elected in 2008 with more votes than any candidate in the state's history. During his tenure, Indiana went from an \$800 million deficit to its first AAA credit rating, led the nation in infrastructure building and saw sweeping education and healthcare reforms.

After a series of transformations, which included the biggest tax cut in state history, the nation's most sweeping deregulation of the telecommunications industry and a host of other reforms aimed at strengthening the state's economy, Indiana was rated a top-five state for business climate and number one for state infrastructure and effectiveness

of state government as Daniels exited office. Indiana's business climate is now rated among the nation's best.

At Purdue, Mr. Daniels has prioritized student affordability and reinvestment in the university's strengths. Breaking with a 36-year trend, Purdue has held tuition unchanged from 2012 through at least the 2022-23 academic year. Simultaneously, room rates have remained steady, meal plan rates have fallen about 10%, and student borrowing has dropped 32% while investments in student success and STEM research have undergone unprecedented growth. It is less expensive to attend Purdue today than it was in 2012.

In recognition of his leadership as both a governor and university president, Mr. Daniels was named among the Top 50 World Leaders by Fortune Magazine in 2015 and was elected to the American Academy of Arts and Sciences in 2019.

Prior to becoming governor, Daniels served as chief of staff to Senator Richard Lugar, senior advisor to President Ronald Reagan and Director of the Office of Management and Budget under President George W. Bush. He also was the CEO of the Hudson Institute, a major contract research organization. During an 11-year career at Eli Lilly and Company, he held a number of top executive posts including president of Eli Lilly's North American pharmaceutical operations.

Daniels earned a bachelor's degree from Princeton's Woodrow Wilson School of Public and International Affairs and a law degree from Georgetown. He is the author of three books and a contributing columnist in the Washington Post.



## STAY UP TO DATE ON CHANGES AND TRENDS IN REGULATORY POLICY WITH NDIA'S POLICY BLOG

The NDIA Policy Team monitors, advocates for, and educates government stakeholders on policy matters of importance to the defense industrial base. Help ensure the continued existence of a viable, competitive national technology and industrial base by keeping up with the latest reforms, rules, and regulations.

[Read more at NDIA.org/PolicyBlog](https://www.ndia.org/PolicyBlog)



**NDIA**

**BUSINESS  
INSTITUTE**

## WHERE DEFENSE PROFESSIONALS GO TO SHARPEN THEIR SKILLS.

NDIA's Business Institute, or the BI, launched in 2021 and since then, it's fast become the go-to hub for defense-related professional development.

The BI helps build a healthier defense industrial base by providing high-quality courses and workshops. Our virtual real-time, on-demand and in-person courses are designed to help professionals know their way around the defense industry: bid better, manage your business processes and execute to get the results you need.

We offer an array of courses taught by our partners, best-in-class experts from Carnegie Mellon University, University of Dayton School of Law, The Maher Group, Mastering Business Development LLC, Defense Acquisition University, Egglar Institute of Technology, and Offset Education LLC.

As the BI expands, we'll add more partnerships. And from July 2022, the BI is set to offer an in-house learning management system.

**Get ahead. Sign up to a BI course today.**

**For more information on the BI, visit:**  
[NDIA.org/BI](https://ndia.org/BI) or contact Sandra Hubbard, the BI's Program Manager at [shubbard@ndia.org](mailto:shubbard@ndia.org).  
**For updates, follow the BI on LinkedIn at "NDIA Business Institute."**

## WHAT'S SET FOR 2022?

### **Egglar Institute of Technology's On-Demand Courses**

From May, 2022 | Virtual, On-Demand

### **Mastering Business Development, MBDi**

June 21 – 22, and 28 – 29 | Virtual

### **Configuration & Data Management Certification (CDM)**

July, 2022 | Virtual

### **Defense Systems Acquisition Management, Defense Acquisition University**

September 12 – 16 | Arlington, VA

### **Mastering Business Development, MBDi**

September 27 – 28 | Arlington, VA

November 8 – 9, and 15 – 16 | Virtual

## COMING SOON

Check our website for dates and course information on these events this year:

- Business Inside the Beltway – Maximizing Government Opportunities
- Cybersecurity Supply Chain
- Executive Leadership Skills

As of Apr 2022



## AMBASSADOR HARRY B. HARRIS JR.

*Admiral, U.S. Navy (Retired); Former Commander, U.S. Pacific Command; Former U.S. Ambassador to the Republic of Korea*

As the highest-ranking Asian American in the history of the U.S. Navy, Ambassador

Harry B. Harris Jr. oversaw all military operations for more than half of the world's geography as Commander, U.S. Pacific Command (USPACOM). Widely regarded for his leadership, Amb. Harris was selected to serve by two presidential administrations – first to lead in one of the military's most challenging roles, and later as U.S. Ambassador to the Republic of Korea.

Amb. Harris took command of USPACOM in 2015, the oldest multi-service command that stretches from California to the Indian Ocean, and from the Arctic Sea to Antarctica. As commander, he led efforts for the peaceful denuclearization of the Korean Peninsula. Prior to leading USPACOM, Amb. Harris served in a variety of roles in the U.S. Navy, including as representative

of the chairman of the Joint Chiefs of Staff to Secretaries of State Hillary Clinton and John Kerry and commander of the U.S. Pacific Fleet. A naval flight officer, he served in all geographic combatant regions and participated in several major operations, including Desert Shield/Storm, Enduring Freedom, Iraqi Freedom, and Odyssey Dawn. Amb. Harris logged 4,400 total flight hours, including more than 400 combat hours. He retired from the military a four-star admiral in June 2018.

Following his military retirement, Amb. Harris was sworn in as the U.S. Ambassador to the Republic of Korea, serving in this position until January 2021. As ambassador, he led efforts in renegotiating the U.S.-Republic of Korea Special Measures Agreement and promote American interests in South Korea amid deepening economic ties between South Korea and China. He is currently a member of the Council on Foreign Relations.

For his service, Amb. Harris has been awarded numerous medals including the State Department's Distinguished Honor Award, the CIA's Agency Seal Medal and Ambassador's Award, two Defense Distinguished Service Medals, three Navy Distinguished Service Medals, and three Legions of Merit. In addition to being awarded the Dr. Jean Mayer Global Citizenship Award from Tufts University in 2021, he has been nationally recognized for his work as a champion of diversity.

Amb. Harris was born in Japan and raised in Tennessee and Florida. A graduate of the U.S. Naval Academy, he holds master's degrees from Harvard's Kennedy School of Government and Georgetown's School of Foreign Service. He undertook post-graduate studies at Oxford University, and completed the Seminar 21 fellowship at MIT.



## DR. STEVEN G. WAX

*Principal Deputy, Director of Defense Research and Engineering for Research and Technology*

Dr. Steven G. Wax is the Principal Deputy, Director of Defense Research and Engineering for

Research and Technology (DDRE(R&T)) in the Office of the Under Secretary of Defense for Research and Engineering (OUSDR&E) at the Pentagon. He is responsible for championing the Department of Defense (DoD) Science and Technology (S&T) Enterprise, including establishing and implementing the S&T strategic vision and DoD imperatives by identifying strategic investment areas and influencing the DoD-wide S&T Strategy and Planning Guidance across the Department's laboratories. Dr. Wax provides oversight of the S&T workforce and laboratory infrastructure policy, including for federally-funded research and development centers and university-affiliated research centers.

Dr. Wax is the OUSDR&E lead for maintaining technology advantage, through which he establishes policy and implements technology and program protection methodologies. He also oversees a broad

portfolio of S&T programs, including the Basic Research Program, Small Business Innovation Research/Small Business Technology Transfer, Manufacturing Innovation Institutes, DoD ManTech Program, and Microelectronics programs.

As a retired Air Force officer, Dr. Wax has over 45 years of Defense research and development (R&D) experience, including executive positions in DoD and industry and as a senior technical consultant. His most recent government position was as Chief Scientist of the Defense Threat Reduction Agency (DTRA), an SES position that serves as the technical advisor to the Director, DTRA and the Director, DTRA R&D. In this role, he was also responsible for DTRA's basic research program, its international S&T engagement, and the coordination of DTRA's S&T program with the Combatant Commands. Dr. Wax also spent 12 years at the Defense Advanced Research Projects Agency (DARPA), including as Director of the Defense Sciences Office (DSO), where he was responsible for a \$450 million per year office portfolio of innovative basic, applied, and exploratory research and

technology programs spanning the physical sciences, biological warfare defense, biological science, combat medicine, human effectiveness, cognitive science, and mathematics. His other DARPA positions included Deputy Director, DSO and Senior Scientist, Materials. As an Air Force officer, he was assigned to the National Reconnaissance Office, Air Force Office of Scientific Research, DARPA, and the Air Force Rocket Propulsion Laboratory.

Dr. Wax was a member of the Air Force Research Laboratory's Human Effectiveness Directorate's independent Review Team and the National Materials and Manufacturing Board. He also served as a panel member on the Materials Science and Technology External Review for Sandia National Laboratory. His awards include the George Kimball Burgess Memorial Award (material science) and the Secretary of Defense Medal for Outstanding Public Service. He has a PhD in Ceramic Engineering from Georgia Institute of Technology, an M.S. in Chemical Engineering from the University of Illinois, and a B.S. in Chemical Engineering from the University of Massachusetts.



### INTEGRATED PRECISION WARFARE REVIEW (IPWR-22)

May 4 – 5, 2022 | Arlington, VA

Acquisition and Policy | Precision Capability | Air & Missile Defense



### 2022 CBRN DEFENSE CONFERENCE AND EXHIBITION

July 26 – 28, 2022 | Baltimore, MD

Combat Architecture | Defensive Measures | Demilitarization | Preparedness | Industrial Base



### BREAKTHROUGH ENERGETICS 2022\*\*

May 4 – 5, 2022 | West Lafayette, IN

Science & Engineering Technology | Propellants | Explosives | Modeling & Simulation



### 2022 SPACE WARFIGHTING INDUSTRY FORUM (SWIF)\*\*

August 17\*\* – 18\*, 2022 |  
Colorado Springs, CO

Defense Research & Development | Science & Technology



### 65<sup>TH</sup> ANNUAL FUZE CONFERENCE

May 10 – 12, 2022 | Renton, WA

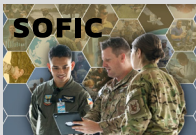
Fuze | Missiles | Munitions Technology | Safety & Arming Devices | Warheads



### FUTURE FORCE CAPABILITIES CONFERENCE & EXHIBITION

September 19 – 22, 2022 | Austin, TX

Autonomous Systems | GARM | Live Fire | Multi-Domain | Small Arms | EOD



SOFIC

### 2022 SPECIAL OPERATIONS FORCES INDUSTRY CONFERENCE & EXHIBITION (SOFIC)

May 16 – 19, 2022 | Tampa, FL

Communications | Light Vehicles | Small Arms | Special Operations



### UNDERSEA WARFARE FALL CONFERENCE\*

September 26 – 28, 2022 | Groton, CT

Aviation USW | C4I | Mine Warfare | Undersea Sensors & Vehicles | Warfighter Performance



NTSA

TSIS

### TRAINING & SIMULATION INDUSTRY SYMPOSIUM (TSIS)

June 15 – 16, 2022 | Orlando, FL

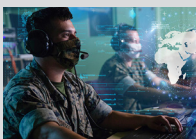
Training | Simulation | Modeling | Acquisition/Funding



### 25<sup>TH</sup> ANNUAL SYSTEMS & MISSION ENGINEERING CONFERENCE

November 1 – 3, 2022 | Orlando, FL

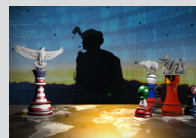
Program management, Security models, Test & evaluation, Manufacturing



### 2022 HUMAN SYSTEMS CONFERENCE

June 15 – 16, 2022 | Arlington, VA

Human Systems | Joint Cognitive Systems | Human Systems Integrations | Artificial Intelligence



### 33<sup>RD</sup> ANNUAL NDIA SO/LIC SYMPOSIUM

November 17 – 18, 2022 | Washington, DC

Special Operations Forces | Strategic Competition



### 2022 JADC2 & ALL DOMAIN WARFARE SYMPOSIUM\*\*

July 11 – 13, 2022 | Mclean, VA

Cyber | Cyber-Augmented Operations | Information Technology | Warfare



NTSA

### I/ITSEC 2022

November 28 – December 2, 2022 |  
Orlando, FL

Simulation | Training | Virtual Reality

\*All Classified | \*\*Partially Classified