



NDIA

26TH ANNUAL
**SYSTEMS & MISSION
ENGINEERING
CONFERENCE**

Forging a New Era: Digital Transformation and the DoD

October 16 – 19, 2023 | Norfolk, VA | [NDIA.org/SME23](https://ndia.org/SME23)

AGENDA

MONDAY, OCTOBER 16

1:00 – 5:00 pm

Registration
MAIN BALLROOM FOYER

Sponsored by:  **KEYSIGHT**

TUESDAY, OCTOBER 17

7:00 am – 6:00 pm

Registration
MAIN BALLROOM FOYER

Sponsored by:  **KEYSIGHT**

7:00 – 8:00 am

Networking Breakfast with Tabletop Exhibitors
MAIN BALLROOM FOYER

8:00 – 8:10 am

Opening Remarks
SALON D&E

John Daly
Engineer/Manager, Booz Allen Hamilton
NDIA Systems Engineering Division Chair

8:10 – 8:55 am

R&E Update (Pre-Recorded)
SALON D&E

Dr. David Honey, SES
Deputy Under Secretary of Defense for Research and Engineering

Elmer Roman, SES
Director, Mission Integration for Mission Capabilities, OUSD (R&E), Mission Capabilities
Introducer

Thomas Simms, SES
Principal Deputy Executive Director, The Office of Systems Engineering and Architecture (SE&A), OUSD (R&E)
In-Person Moderator

8:55 – 9:40 am

DOT&E Responds to New Era of Digital Transformation for the DoD
SALON D&E

Dr. Raymond O'Toole, SES
Principal Deputy Director, Operational Test & Evaluation

9:40 – 10:10 am

Ferguson and Rassa Award Ceremony
SALON D&E

John Daly
Engineer/Manager, Booz Allen Hamilton
NDIA Systems Engineering Division Chair
Award Presenter

LT GEN THOMAS R. FERGUSON AWARD

Dr. Dinesh Verma
Professor, School of Systems & Enterprises
Executive Director, Systems Engineering Research Center, Stevens University
Awardee

BOB RASSA EXCEPTIONAL SERVICE AWARD

Holly Dunlap
Principal System Security Engineer, Cyber Supply Risk Management
Awardee

10:10 – 10:55 am

Networking Break
Main Ballroom Foyer

10:55 – 11:40 am

Keynote Address
SALON D&E

Kristen Baldwin, SES
Deputy Assistant Secretary of the Air Force for Science, Technology, and Engineering,
Office of the Assistant Secretary of the Air Force (Acquisition, Technology and Logistics)

11:40 am - 12:40 pm

Networking Lunch
GRANBY BALLROOM

Sponsored by: 

NDIA CAREER CENTER

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12:40 – 1:25 pm

DTE&A – Test as a Continuum Presented to NDIA ME, SE, T&E Conference

SALON D&E

Christopher Collins, SES

Executive Director, Developmental Test, Evaluation, and Assessments, OUSD (R&E)

1:25 – 2:05 pm

Tester of the Year & Hollis Award Ceremony

SALON D&E

Jeff Bilco

Senior Manager, Boeing Test & Evaluation, Engineering Strategy, Technology & Initiatives
Award Presenter

Christopher Collins, SES

Executive Director, Developmental Test, Evaluation, and Assessments, OUSD (R&E)
Award Presenter

TESTER OF THE YEAR AWARD

LCDR Brian Warren, USN

P-8A Flight Test, Air Test, and Evaluation Squadron Two Zero
Awardee

1st Lt Cameron Greer, USAF

Lead Flight Test Engineer, AFOTEC Detachment 6
Awardee

WALTER HOLLIS LIFETIME ACHIEVEMENT AWARD

George Rumford

Director, Department of Defense Test Resource Management Center
Awardee

2:05 – 2:50 pm

Digital Transformation : An Industry’s Perspective – Scaling Model-Based Systems Engineering to the Full Enterprise

SALON D&E

Reggie Cole

Lockheed Martin Senior Technical Fellow and Chief Enterprise Architect

Chris Phillips

Director of Systems Engineering, Strategic Deterrent Systems-Engineering & Manufacturing Operations, Northrop Grumman

2:50 – 3:20 pm

Networking Break with Tabletop Exhibitors

MAIN BALLROOM FOYER



INTERSERVICE/INDUSTRY TRAINING, SIMULATION & EDUCATION CONFERENCE **SUSTAINING A GLOBAL FORCE IN A DIGITAL WORLD**

- Aerospace Simulation & Training
- Aircrew Trainers
- Applied R&D
- Applied Systems Engineering
- AR/VR
- Big Data
- Cloud Computing
- Construction / Mining
- Consultancy/Project Management
- Cyber
- DIS IEEE 1278.1x or HLA 1516 Capable
- Disaster Relief/Planning Simulations
- Distance / Distributed Learning
- Educational Products & Services
- Electronic Components
- Electronic Training/Synthetic
- Engineering/Damage Control Trainers
- Exercise Management
- Flight Simulation & Training
- Gaming
- Homeland Security
- Instructional Systems Design
- LVC (Live, Virtual, Constructive)
- Manufacturing
- Medical Simulation & Training
- Metaverse
- Mission Planning/Mission Rehearsal
- Modeling Services
- Oil, Gas, Energy
- Operational & Maintenance Services
- Operator/Driver Trainers
- Physical Training Equipment
- Pre-Brief/After Action Review
- Research & Development
- Security / Software / Toolkits
- Shiphandling Trainers
- Small Arms Training
- Small Business
- Staffing/Logistics Support
- STEM
- Tactics Trainers
- Training Products / Services
- Transportation
- Vehicle Trainers
- Verification & Validation
- Visual Computing / Display Products
- Weapon Systems Trainers & Equipment

WHY VITSEC?

- 17,400 attendees
- 550 exhibitors
- 191,800 sq ft exhibit hall
- Over 1,980 international attendees, from 56 countries

CONCURRENT BREAKOUT SESSIONS

	1A1 – System Security Engineering	1A2 – Mission Engineering / System of Systems	1A3 – ADAPT	1A4 – Digital Engineering Environment	1A5 – Physics-Based Modeling and Simulation	1A6 – Specialty Engineering & Safety Environmental Engineering
	Cory Ocker	Dr. Judith Dahmann	Robin Yeman	Patrick Bains	Jonathan Backhaus	Tim Sheehan & Kate Harris
	SALON A	SALON B	SALON C	SALON D	SALON E	SALON F
3:20 – 3:50 pm	<p>SSE 1555138</p> <p>Program Protection and Secure Cyber Resilient Engineering Initiatives</p> <p>Melinda Reed, SES Director, System Security, OUSD (R&E)</p>	<p>ME/SoS 1560075 (Panel)</p> <p>Mission Engineering – Panel</p> <p>Dr. Judith Dahmann Technical Fellow, The MITRE Corporation Moderator</p> <p>Elmer Roman, SES Director, Mission Integration, OUSD Research and Engineering, Mission Capabilities</p> <p>Dr. Todd Sriver Acting Deputy Assistant Secretary of Defense (DASD) Strategic, Space, and Intelligence Portfolio Management, OUSD Acquisition and Sustainment</p>	<p>ADAPT 1559130</p> <p>Effective Use of Kanban and Agile Tools to MBSE Programs</p> <p>Michael Shearin Associate Division Chief, Systems Engineering Research Division, GTRI</p>	<p>DEE 1560016</p> <p>Supply Chain Transparency in NSSL Quality Engineering Delivers Resiliency in Space Launch</p> <p>Maj Juan Mayssonet, USSF Chief, NSSL Quality Engineering Branch USSF/AATS Engineering</p> <p>David Rampton Managing Director, Aerospace & Defense Provenance Chain Network, USSF/AATS Engineering SE&I</p>	<p>PBMS 1559004</p> <p>Leveraging digital engineering for the design of hypersonic vehicles</p> <p>Dr. Valerio Viti Aerospace and Defense Team Lead, Anys</p>	<p>SE/SEE 1560060</p> <p>A Hallmark of Mission Resilience: Sustainability in the Acquisition Process</p> <p>David Asiello Director, Sustainment & Acquisition (ODASD (E&ER))</p>
3:50 – 4:20 pm	<p>SSE 1541309</p> <p>Secure Cyber Resilient Design Guidance</p> <p>Dr. Mark Winstead Chief Engineer, System Security, The MITRE Corporation</p> <p>Mr. Michael McEvilley Principal Systems Engineer, The MITRE Corporation</p>	<p>Matthew Fulchino Corporate Executive Director of Mission Analysis, Raytheon Technologies</p> <p>David Toth NAVSEA Mission Engineering Lead, NUWC Newport Digital Engineering Lead, Naval Undersea Warfare Center Division Newport</p>	<p>ADAPT 1559858</p> <p>Agile EaSA: An Approach for Agile Systems Engineering</p> <p>Dr. Mark Vriesenga Director, Model-Based Agile Engineering, BAE Systems</p>	<p>DEE 1523829</p> <p>Considerations in Applying Standards to Enable Digital Engineering Transformation</p> <p>Cecilia Tseng Sr Manager A&D Industry, Dassault Systems</p>	<p>PBMS 1546683</p> <p>Developing Multi-Disciplinary Optimization Infrastructure</p> <p>Kaitlyn Britt Human Factors Engineer, Lockheed Martin Space</p>	<p>SE/SEE 1548651</p> <p>Sustainability Analysis in the Adaptive Acquisition Framework</p> <p>Emma Williams Safety and Environmental Engineering (SEE), Noblis</p>
4:20 – 4:50 pm	<p>SSE 1562180 (Panel)</p> <p>Panel - Impressions from Cyber Resilient Weapon Systems Workshop 12</p> <p>Richard F. Massey Senior Tech Fellow, The Boeing Company</p>		<p>ADAPT 1552604</p> <p>The Three Ways and The Phoenix Project</p> <p>Robin Yeman PhD Candidate, SEI Carnegie Mellon</p>	<p>DEE 1559951</p> <p>Systems Engineering Modernization Roadmap (Status Update)</p> <p>Nadine Geier Director, Systems Engineering, OUSD (R&E) (SE&A)</p> <p>Dr. Kelly Alexander Technical Lead SE Modernization, SE&A OUSD (R&E) (Contractor Support)</p>	<p>PBMS 1555460</p> <p>Mission Driven Structural Thermal Optical Performance Analysis</p> <p>Steve La Cava Lead Application Engineer, Ansys, Inc</p>	<p>SE/SEE 1555504</p> <p>The NDCEE Program Focuses on Developing Innovative Technologies to Address Energy and Environmental Challenges in the DoD, Leading to Successful Initiatives</p> <p>Clayton Ferguson Program Manager, US Army Environmental Command</p>
4:50 – 5:20 pm			<p>ADAPT</p> <p>Accelerating Value Delivery in Highly Complex Domains</p> <p>Kelli Houston Lockheed Martin Associate Fellow SAFe Program Consultant (SPC) Software Engineer Senior Staff – Enterprise Agile Transformation, Lockheed Martin, Missiles and Fire Control</p>	<p>DEE 1544272</p> <p>Aerospace Digital Engineering Ecosystem: Architecture and Implementation</p> <p>Dr. Erin Ryan Senior Project Engineer, Aerospace Corporation</p>	<p>PBMS 1560080</p> <p>Simulation and Analysis of the Optical Effects of Fluids</p> <p>Steven LaCava Lead Application Engineer, Ansys, Inc.</p>	<p>SE/SEE 1559945</p> <p>DoD Joint System Safety Standards Working Group Status and Implementing Civilian Harm Mitigation Response Action Plan Elements into MIL-STD-882E</p> <p>Lori Hales Lead Application Engineer, Ansys, Inc., Booz Allen Hamilton</p>

5:20 – 6:30 pm

Networking Reception with Tabletop Exhibitors

MAIN BALLROOM FOYER

WEDNESDAY, OCTOBER 18

CONCURRENT BREAKOUT SESSIONS

7:00 AM – 5:00 pm

Registration

MAIN BALLROOM FOYER

Sponsored by:  **KEYSIGHT**

7:00 – 8:00 am

Networking Breakfast with Tabletop Exhibitors

MAIN BALLROOM FOYER

8:00 – 9:00 am

Keynote Address: The Official Digital Engineering Game Show

SALON D&E

9:00 – 9:30 am

Networking Break with Tabletop Exhibitors

MAIN BALLROOM FOYER

NDIA

2023 AIRCRAFT SURVIVABILITY SYMPOSIUM

Register Today!

**The Multi-Domain Kill-Web:
Opportunities for Collaborative Survivability**

Join senior-level defense industry professionals and their government counterparts as they engage in a technical dialogue and exchange information related to technological advances, operational experiences, current and future threats, system reliability, and other aircraft survivability topics. Attendees will collaborate to unlock the keys to enhancing survivability across a multi-domain battlespace. This two-day classified symposium with an optional third day of classified tutorials offers a unique opportunity for learning with its extensive agenda and inclusion of relevant tutorials and presentations. Mark your calendars for this highly anticipated event.

October 31 – November 2 | Monterey, CA | [NDIA.org/AircraftSurvivability](https://ndia.org/AircraftSurvivability)

NDIA Leading the Way in Engagement, Networking, and National Defense

Plan Ahead for Success | 2023 – 2024 Featured Meetings, Conferences, and Events



34th Annual NDIA SO/LIC Symposium

October 30 – 31, 2023 | Washington, DC



38th Annual National Logistics Forum

February 6 – 7, 2024 | Oklahoma City, OK



2024 Human Systems Conference

March 21 – 22, 2024 | Arlington, VA



2023 Aircraft Survivability Symposium

October 31 – November 2, 2023* | Monterey, CA



2024 Tactical Wheeled Vehicles Conference

February 26 – 28, 2024 | Charlotte, NC



2024 Ronald Reagan Missile Defense Conference

April 16 – 17, 2024 | Washington, DC



2023 Expeditionary Warfare Seminar

November 1, 2023* | Arlington, VA



2024 Pacific Operational Science & Technology (POST) Conference

March 4 – 7, 2024* | Honolulu, HI



MODSIM World 2024

May 20 – 22, 2024 | Norfolk, VA



I/ITSEC 2023

November 27 – December 1, 2023 | Orlando, FL



2024 Munitions Executive Summit

March 19 – 20, 2024 | Parsippany-Troy Hills, NJ



Training & Simulation Industry Symposium (TSIS) 2024

June 12 – 13, 2024 | Orlando, FL

*All Classified | **Partially Classified

	2B1 – System Security Engineering	2B2 – Mission Engineering / System of Systems	2B3 – Test & Evaluation	2B4 – Digital Engineering Environment	2B5 – Physics-Based Modeling and Simulation	2B6 – Specialty Engineering & Safety Environmental Engineering
	Cory Ocker	Dr. Judith Dahmann	Dr. Dale Moore	Patrick Bains	Jonathan Backhaus	Tim Sheehan & Kate Harris
	SALON A	SALON B	SALON C	SALON D	SALON E	SALON F
9:30 – 10:00 am	<p>SSE 1558998</p> <p>Good Enough, Not Great (Yet)...:Pairing Cyber-Physical Systems Risk Assessment Processes to Lifecycle Needs</p> <p>Andrew Brown Cyber Security Engineer, Modern Technical Solutions Inc. (MTSI)</p> <p>Luke Thomas Chief Design Engineer – Product Security. Rolls Royce</p>		<p>T&E 1555281 (Panel)</p> <p>Transforming and Scaling DoD Test and Evaluation Strategies, Guidance, Policies and Processes for Artificial Intelligence Systems Applications Setting the Stage</p> <p>Kevin Switick CEO, Avian LLC</p> <p>Panel #1 - T&E for AI: Policy, Plans, and Strategies for Change</p> <p>Dr. Kristen Alexander OSD Operational Test and Evaluation</p> <p>Carol Pomaes Principle Systems Engineering/ T&E Group Leader, MITRE</p> <p>Jonathan Elliot Director of AI Assess and Assurance, OSD Chief Digital and Artificial Intelligence Office (CDAO)</p> <p>David Beyrodt Director, Test Design, Operational Test and Evaluation Force</p>	<p>DEE 1545314</p> <p>Implementing AI in Ontology Development for Digital Thread Integration Solution</p> <p>Nicole Manno Digital Engineer, ManTech International</p>	<p>PBMS 1558556</p> <p>Building An In-House MBSE Training and Education Program</p> <p>Justin Blevins Chief Digital Engineer, SAIC</p>	<p>SE/SEE 1556404</p> <p>Agile System Safety in a Model Based Design Environment</p> <p>Michael Hurley Head of Product Safety, BAE Systems Inc.</p>
10:00 – 10:30 am	<p>SSE 1554849</p> <p>Program Protection Plan Outline and Guidance Update Overview</p> <p>Melinda Reed, SES Director, System Security, OUSD (R&E)</p> <p>Burhan Adam Director, Policy, Guidance, and Standards, OSD(R&E)</p>	<p>ME/SoS 1556323</p> <p>Defining Portfolios in the Department of Defense: Linking Portfolios to Strategy and Mission Analysis</p> <p>John Park USMC Combat Development & Integration</p>		<p>PBMS 1559358</p> <p>Aligning Digital Engineering and Modeling & Simulation at Office of the Secretary of Defense</p> <p>Daniel Hetteema Director of Digital Engineering, Modeling & Simulation, SE&A, OUSD (R&E)</p>	<p>PBMS 1558563</p> <p>Digital Engineering's Inflection Point: Are We Plumbers or Are We Pros?</p> <p>Justin Blevins Chief Digital Engineer, SAIC</p>	<p>SE/SEE 1551665</p> <p>Beyond Traditional Methods: Why Model-Based Systems Engineering is a Game-Changer for Safety Analysis</p> <p>Kate Kovalovsky Director of MBSE Services, Strategic Technology Consulting</p>
10:30 – 11:00 am	<p>SSE 1563302</p> <p>Clarity in the Security Soup Through a Bowtie</p> <p>Richard Massey Senior Tech Fellow, The Boeing Company</p>	<p>ME/SoS 1559566</p> <p>Connecting Mission Engineering, System of Systems, Systems Engineering and Test & Evaluation</p> <p>Anthony Pratley CHENG Mission Data Integration, OUSD (R&E)</p>	<p>Panel #2 - T&E for AI: Testing Future Technologies – Challenges and Opportunities</p> <p>CAPT Eric Mason, USN Deputy Director, Operational Test and Evaluation Force</p> <p>Edward Heinbocker CEO, SavantX</p> <p>Dr. Josef Schaff Chief Scientist, Cyber Dominance Group (JHU APL) Non-Kinetic Warfare Branch</p> <p>Dr. Bernard Dion Fellow, Ansys</p>	<p>DEE 1546643</p> <p>Application Programming Interfaces (APIs) Enabling Data Interoperability in the DoD</p> <p>Allan Dianic Director, Software Engineering, SE&A, OUSD (R&E)</p>	<p>PBMS 1559412</p> <p>Interactive and Innovative Training with MBSE</p> <p>Dr. Steven Dam President and COO, SPEC Innovations</p> <p>Michael Jordan Systems Engineer, SPEC Innovations</p>	<p>SE/SEE 1554710</p> <p>Model-Based Systems Engineering for Iterative MIL-STD-882E Autonomous Ground Vehicle Safety Programs</p> <p>Frank Fratrik Vice President, Edge Case Research</p>
11:00 – 11:30 am	<p>SSE 1555255</p> <p>Trustworthiness and Assurance</p> <p>Dr. Mark Winstead Chief Engineer, System Security, The MITRE Corporation</p>	<p>ME/SoS 1551931</p> <p>Structuring Strategy to Enable Mission Engineering</p> <p>John Park USMC Combat Development & Integration</p>		<p>DEE 1551954</p> <p>A Usability Framework for Digital Engineering Software</p> <p>Allen Dukes Computer Scientist, Air Force Institute of Technology</p>	<p>PBMS 1538459</p> <p>Future Consideration of Generative Artificial Intelligence (AI) for Systems Engineering Design</p> <p>Andrew Gabel Systems Engineer, The Boeing Company</p>	<p>SE/SEE 1546505</p> <p>Determining Safety Risks for Artificial Intelligence/ Machine Learning (AI/ML) Enabled Systems</p> <p>Christopher Green General Engineer, Naval Surface Warfare Center Dahlgren Division</p>

11:30 am–12:30 pm

Networking Lunch
GRANBY BALLROOM

Sponsored by: 

	2C1 – System Security Engineering	2C2 – Mission Engineering / System of Systems	2C3 – Test & Evaluation	2C4 – Digital Engineering Environment	2C5 – Physics-Based Modeling and Simulation	2C6 – Specialty Engineering & Safety Environmental Engineering
	Cory Ocker	Dr. Judith Dahmann	Jeff Bilco	Patrick Bains	Jonathan Backhaus	Tim Sheehan & Kate Harris
	SALON A	SALON B	SALON C	SALON D	SALON E	SALON F
12:30 – 1:00 pm	<p>SSE 1556542</p> <p>Critical Program Information Identification Alignment</p> <p>Randy Woods Director, SSE and AT, OUSD (R&E)</p>	<p>ME/SoS 1556157</p> <p>Emerging Complexity Impacts on Systems & Mission Engineering</p> <p>David Chesebrough Vice President, Government, Defined Business Solutions</p>	<p>T&E 1558418</p> <p>Director Operational Test and Evaluation Initiatives for Adequate Test and Evaluation of Artificial Intelligence Enabled Systems</p> <p>Dr. Kristen Alexander Chief Learning and Artificial Intelligence Officer, OSD/DOT&E</p>	<p>DEE 1552546</p> <p>Evaluating Cybersecurity Tools for Use in an Early STPA-Sec Methodology as Recommended by the DAU Cybersecurity Best Practices Guidebook for Major Acquisitions</p> <p>Daniel Newport Branch Chief, Cyber Technology Development (CTD), Grounds Systems Cyber Engineering (GSCE), Ground Vehicle Systems Center (GVSC), U.S. Army Combat Capabilities Development Command (CCDC)</p>	<p>PBMS 1543107</p> <p>Understanding Modeling and Simulation Workflows for Digital Engineering Transformation</p> <p>Risa Gorospe Senior Systems Engineer, The Johns Hopkins University Applied Physics Laboratory</p>	<p>SE/SEE 1548860</p> <p>Reducing the Impact of Corrosion on the Force</p> <p>Chris DeLuca Director, Specialty Engineering, SE&A, OUSD (R&E)</p> <p>Robert A. Herron Director, Corrosion Policy and Oversight, Office of DASD Materiel Readiness, OUSD (A&S)</p>
1:00 – 1:30 pm	<p>SSE 1562269</p> <p>Aviation and Space Domain Zero Trust</p> <p>Richard F. Massey Senior Tech Fellow, The Boeing Company</p>	<p>ME/SoS 1560767</p> <p>Snip-It Plug-in – An Approach for System of Systems Modeling Reuse</p> <p>Valentina Waters Systems Engineer, MBSE, MITRE Corporation</p> <p>Christina Thompson Lead Systems Engineer, MITRE</p>	<p>T&E 1559339</p> <p>A GPU-Based solution to Sensor Emulation and Synthetic Data Generation</p> <p>John Ploschnitznig Technical Director, Sensor Systems, Ansys Government Initiative</p>	<p>Space F 1566176</p> <p>NSSL Phase 3 Mission Assurance Framework</p> <p>Robert Cunningham Deputy Chief Engineer, US Space Force</p>	<p>PBMS 1552447</p> <p>Developing Pathways between SysML models and Digital/Virtual Twins</p> <p>Steven Huang Subject Matter Expert, Innovation & Capabilities Organization</p>	<p>SE/SEE 1546370</p> <p>Updates on Human Systems Integration Governance and Responsibilities for Department of Defense</p> <p>Mitchell Woods Human Systems Integration (HSI)/ Systems Safety Lead, OUSD (R&E) SE&A</p>
1:30 – 2:00 pm	<p>SSE 1560891</p> <p>Sanitization / Anonymity: The Hero that Cybersecurity Maturity Model Certification Needs</p> <p>Cory Ocker System Security Engineer, RTX NDIA SSE Committee Chair</p>	<p>ME/SoS 1572502</p> <p>Enhancing United States Space Force Interoperability via Mission Life Extension</p> <p>Capt Jocelle Rudico, USSF Chief, Launch Operations and Innovation, USSF/AATS Engineering</p>	<p>T&E 1559340</p> <p>Data-Driven Test and Evaluation</p> <p>Dr. Steven Dam President and COO, SPEC Innovations</p>	<p>DEE 1556479</p> <p>AATS Digital Ecosystem</p> <p>Maj William Deavor, USSF Digital Engineering Futures Lead, USSF/AATS Engineering</p> <p>Daniel Li Digital Engineering Systems Engineer, ManTech International, USSF/AATS Engineering SE&I</p> <p>Madison Galvin Senior Member of the Technical Staff, The Aerospace Corporation, USSF/AATS</p>	<p>PBMS 1559290</p> <p>Transforming a Descriptive Systems Model Into a Digital twin for Improving the system development process</p> <p>Clara Ramirez Graduate Research Assistant, P&W Institute of Advanced Systems Engineering</p>	<p>SE/SEE 1571915</p> <p>PFAS - Current Regulatory Environment for Aerospace and Defense Products</p> <p>Timothy Sheehan Engineering Fellow, Raytheon Technologies</p>
2:00 – 2:30 pm	<p>SSE 1555151</p> <p>Secure Cyber Resilient Engineering (SCRE) Practice</p> <p>Melinda Reed, SES Director, System Security, OUSD (R&E)</p> <p>Dr. Mark Winstead Chief Engineer, System Security, The MITRE Corporation</p>	<p>ME/SoS 15660666</p> <p>Implementing the Digital Transformation Trifecta in Air Force Research Lab's 711 Human Performance Wing with the Digital Fusion Cell to Make It Simple</p> <p>Mark Derriso Chief Engineer, AFRL 711 Human Performance Wing</p> <p>Erick Richardson Digital Engineering Subject Matter Expert, AFRL 711 Human Performance Wing</p>	<p>T&E 1560564</p> <p>Uncertainty Quantification for T&E and Digital Twins</p> <p>Kaylan Sharma AE, Ansys Inc.</p>	<p>DEE 1557634</p> <p>Application of Digital Viewpoint Model (DVM) Concept on NAVSEA Digital Engineering Framework</p> <p>Leqi Zhang Principal Solution Architect, L3 Harris</p>	<p>PBMS 1548934</p> <p>Approaches for Collaborative Modeling in Cross Company Environments</p> <p>Amanda Weissman Software/System Architecture Manager, Lockheed Martin</p>	<p>SE/SEE 1561836</p> <p>The Relative Human and Ecological Hazards Posed by F3 AFFF Replacement Formulations</p> <p>Amy DeLong Toxicologist, Industrial Hygiene Department, Navy & Marine Corps Force Health Protection Command</p>

Networking Break with Tabletop Exhibitors

MAIN BALLROOM FOYER

	2D1 – System Security Engineering	2D2 – Mission Engineering / System of Systems	2D3 – Architecture / MOSA	2D4 – Digital Engineering Environment	2D5 – Physics-Based Modeling and Simulation	2D6 – Specialty Engineering & Safety Environmental Engineering
	Cory Ocker	Dr. Judith Dahmann	Bob Scheurer	Patrick Bains	Jonathan Backhaus	Tim Sheehan & Kate Harris
	SALON A	SALON B	SALON C	SALON D	SALON E	SALON F
3:00 – 3:30 pm	<p>SSE 1551667</p> <p>Building Mission Assurance with Trusted Suppliers</p> <p>David Chesebrough Vice President, Government, Defined Business Solutions</p>	<p>ME/SoS 1559007</p> <p>Mission Engineering in the DoD: Leveraging Advanced Concepts and Digital Transformation for Enhanced Efficiency</p> <p>Whitney Bobbit Director of Integrated Solutions, Ansys</p>	<p>Arch/MOSA 1559037</p> <p>Assessing the State of MOSA in Defense Acquisition</p> <p>Nadine Geier Director, Systems Engineering, SE&A, OUSD (R&E)</p> <p>Nathaniel Barley Technical Lead MOSA (Contractor Support)</p> <p>Monique Ofori Modular Open Systems Architecture (MOSA) Expert & Systems Engineering Manager, SAIC</p>	<p>DEE 1559458</p> <p>The 5 pillars of Digital Engineering Environments</p> <p>Eran Gery A&D Industry lead, IBM</p>	<p>PBMS 1559511 (Panel)</p> <p>Interactive Use of HoloLens Augmented Reality for MBSE</p> <p>Amir Abrari System Engineer, SPEC Innovations</p>	<p>SE/SEE 1547312</p> <p>A System Dynamics Approach for Assessing Policy Impacts on Recycling Cost-Effectiveness: A Case Study on Electric Vehicle Batteries</p> <p>Guannan Ren Student, The George Washington University</p>
3:30 – 4:00 pm	<p>1551679 (Panel)</p> <p>Trusted Suppliers on Assured Microelectronics</p> <p>David Chesebrough Vice President, Government, Defined Business Solutions</p> <p>Sam Hernandez Trusted Foundry CTO, IBM</p> <p>John Monk Director – Micro Systems Technology Center, Northrop Grumman</p> <p>Catherine Ortiz CEO, Defined Business Solutions</p>	<p>ME/SoS 1560086</p> <p>Shared Modeling Framework – An Approach for System of Systems Modeling Reuse</p> <p>Dr. Michael Pennock Principal Systems Engineer, The MITRE Corporation</p>	<p>Arch/MOSA 1562000</p> <p>Systems Engineering Gold: Digital Acquisition, IV&V, and Space Capability Development Use Cases</p> <p>Jo Ann Vassallo Deputy SE&I Chief Engineer, ManTech International, USSF/AATS Engineering SE&I</p> <p>John Wong Deputy Director of Engineering, USSF/AATS Engineering</p>	<p>DEE 1546720</p> <p>Armaments Center Digital Engineering Maturation: An Ontology Based Approach</p> <p>Dr. Jason Cook SSTM for SE Research, DEVCOM Armaments Center</p>	<p>PBMS 1524804</p> <p>Digital Engineering: Systems Model Exchange Framework</p> <p>Jeff Pilato Chief Strategy Officer, Sodus Corp</p>	<p>SE/SEE 1559583</p> <p>Getting Fall Protection Right: Shaping Requirements and Design to Decrease Lifecycle Cost and Increase Readiness</p> <p>Shawn Smith Director Industrial Health & Occupational Health, Office of the Assistant Secretary of Navy, EI&E</p>
4:00 – 4:30 pm		<p>ME/SoS 1557277</p> <p>Digital Engineering and Operational Analysis - Complementary Approaches to Mission Modeling and Simulation</p> <p>Dr. Peter Korfiatis Systems Engineer, The MITRE Corporation</p> <p>Meg Adams, Senior Resource Manager, MITRE</p>	<p>Arch/MOSA 1551892</p> <p>Architecting Descriptive Models for MBSE</p> <p>Ryan Noguchi Director, Space Architecture Department, Aerospace Corporation</p>	<p>DEE</p> <p>NDIA SE Division Initiative: Artificial Intelligence and Systems Engineering, Presentation and Open Discussion</p> <p>John Daly Engineer/Manager, Booz Allen Hamilton NDIA Systems Engineering Division Chair</p>	<p>PBMS 1538396</p> <p>Unleashing the Power of MBSE Model Library Deployments with Cutting-Edge Methods and Strategic Considerations</p> <p>Andrew Gabel Systems Engineer, The Boeing Company</p>	<p>SE/SEE 1561848 (Panel)</p> <p>An Evaluation of the Relationship Between Firefighter Blood PFAS Levels, Age, and Sex in FY20-21</p> <p>Dr. James Smith Toxicologist, Defense Center for Public Health – Portsmouth</p> <p>Dr. Amy DeLong Toxicologist, Industrial Hygiene Department, Navy & Marine Corps Force Health Protection Command</p>
4:30 – 5:00 pm	<p>SSE 1562513</p> <p>Securing Your Eggs in Multiple Baskets – Using MBSE to Assure a Resilient and Secure Supply Chain</p> <p>Matthew Hause Principal, Systems Strategy Innovation (SSI)</p>	<p>ME/SoS 1557547</p> <p>Considerations for Designing a Mission Engineering Study</p> <p>Dr. Michael Pennock Principal Systems Engineer, The MITRE Corporation</p>	<p>Arch/MOSA 1554101</p> <p>A Reference Architecture for Digital Engineering Environments Supporting Digital Threads and Digital Twins</p> <p>Dr. James Coolahan Chief Technology Officer, Coolahan Associates, LLC</p>	<p>Patrick Bains</p> <p>Senior Lead Engineer, Booz Allen Hamilton</p>	<p>PBMS 1556574</p> <p>It's So Meta!: Modeling Models in a Model Based Style Guide Development</p> <p>Heidi Jugovic Chief Digital Engineer, SAIC</p>	

Closing Remarks Provided by Track Chairs

THURSDAY, OCTOBER 19

CONCURRENT BREAKOUT SESSIONS

7:00 am – 5:00 pm

Registration
MAIN BALLROOM FOYER

Sponsored by: 

7:00 – 8:00 am

Networking Breakfast with Tabletop Exhibitors
MAIN BALLROOM FOYER

	3A1 – System Security Engineering	3A2 – Mission Engineering / System of Systems	3A3 – Architecture / MOSA	3A4 – Digital Engineering Environment	3A5 – Physics-Based Modeling and Simulation	3A6 – Specialty Engineering & Safety Environmental Engineering
	Cory Ocker	Dr. Judith Dahmann	Bob Scheurer & Ed Moshinsky	Patrick Bains	Jonathan Backhaus	Tim Sheehan & Kate Harris
	SALON A	SALON B	SALON C	SALON D	SALON E	SALON F
8:00 – 8:30 am	<p>SSE 1559127</p> <p>System Security Software Assurance Roadmap Update</p> <p>Bradley Lanford Senior Software Engineer, OUSD (R&E) / SAIC</p>	<p>ME/SoS 1572965</p> <p>DoD Mission Engineering Guide 2.0 – Evolving the State of Practice in Defense Mission Engineering</p> <p>John Quackenbush Director of Operations for MI Technical Director, OUSD (R&E)</p>	<p>Arch/MOSA 1556698</p> <p>Program MOSA Transformation Information Needs and Metrics</p> <p>Stephen Henry Consultant</p>	<p>DEE 1560155</p> <p>Digital Thread Data Modeling from Ontology</p> <p>Alyssa Miller Systems Engineer Associate, SAIC</p>	<p>PBMS 1558396</p> <p>An Assessment Framework for the Maturity of Simulation-Based Verification</p> <p>Ben Stirgwolt Director of MBSE, Belcan</p>	<p>SE/SEE 1553746</p> <p>Translating HSI Research into Policy and Guidance: Successes and Challenges Across the Services</p> <p>Eric Engel Human Systems Integration Lead, SAF/AQRE</p>
8:30 – 9:00 am	<p>SSE 1531371</p> <p>Systems Engineering Challenges for Integrating Software Assurance into Defense Systems Viewed Through the Prism of Future Systems</p> <p>Dr. Kenneth Nidiffer Adjunct Professor, George Mason University</p>	<p>ME/SoS 1557708</p> <p>University Support to Mission Engineering Education</p> <p>Dr. Judith Dahmann Technical Fellow, The MITRE Corporation</p> <p>Dr. Dinesh Verma Professor, School of Systems & Enterprises (SSE) Executive Director, Systems Engineering Research Center (SERC)</p>	<p>Arch/MOSA 1556664</p> <p>MOSA Implementation Challenges and Opportunities</p> <p>Robert Scheurer Systems Engineer, The Boeing Company</p>	<p>DEE 1560199</p> <p>SAIC's Game Changing Digital Engineering Ecosystem – ReadyOne</p> <p>Joseph Sopczynski Product Owner, SAIC</p>	<p>PBMS 1561342</p> <p>Model Based Functional Development and Verification of a Digital Beam Forming Antenna for a UAV Application</p> <p>Aniruddha Mukhopadhyay Fellow, Ansys</p>	<p>SE/SEE 1555590</p> <p>Joint Human Systems Integration Working Group Updates on Capabilities Based Assessment</p> <p>Mitchell Woods Chief Technology Officer, Coolahan Associates, LLC, Army ST&I Directorate</p> <p>Napoleon Gaither Human System Integration Lead, Army Research Laboratories – Human Research & Engineering Directorate</p>
9:00 – 9:30 am	<p>SSE 1553891</p> <p>Joint Federated Assurance Center</p> <p>Brian Nowotny, Director, JFAC, OUSD (R&E)</p>	<p>ME/SoS 1542832</p> <p>Welding Together the US DOD's and the US Contractor Community's Widely-Divergent Approaches to Mission Engineering is Imperative to Ensure Combat Success (and we don't have a lot of time to get this right)</p> <p>Mack McKinney President, The Center for Project Leadership LLC</p>	<p>Arch/MOSA 1560578</p> <p>An Architectural Approach to Interdicting Cybersecurity Threats</p> <p>Michael Vinarcik Chief Digital Engineer, SAIC</p>	<p>DEE 1560206</p> <p>Digital Engineering Environment (DEE)</p> <p>Kevin Friske Principle Engineer, Senior, SAIC</p> <p>Jacob Donovan Digital Engineer, SAIC</p>	<p>PBMS 1547834</p> <p>Definition of a SysML v2 MBSE Methodology Model and its Application to a Digital Beamforming Use Case</p> <p>Dr. Bernard Dion Fellow, Ansys</p>	<p>SE/SEE 1546711</p> <p>Human Engineering as Force Multiplier: Getting the Most from Systems Engineering</p> <p>Benjamin Schwartz Director of Human Engineering, Monterey Technologies, Inc.</p>

Networking Break with Tabletop Exhibitors
MAIN BALLROOM FOYER

	3B1 – System Security Engineering	3B2 – Mission Engineering / System of Systems	3B3 – Architecture / MOSA	3B4 – Digital Engineering Environment	3B5 – Physics-Based Modeling and Simulation	3B6 – Specialty Engineering & Safety Environmental Engineering	
	Cory Ocker	Dr. Judith Dahmann	Bob Scheurer & Ed Moshinsky	Patrick Bains	Jonathan Backhaus	Tim Sheehan & Kate Harris	
	SALON A	SALON B	SALON C	SALON D	SALON E	SALON F	
10:00 – 10:30 am	<p>SSE 1559405 (Panel)</p> <p>Industry Lessons Learned from Software Supply Chain Security Implementation w/ Focus on SSDF</p> <p>Kirk Rasmussen Technical Fellow Cybersecurity, Collins Aerospace</p> <p>Richard Massey Senior Technical Fellow, Boeing</p> <p>Ronda Hennig Mission Solutions Architect – Cybersecurity and Fellow, L3 Harris</p> <p>Fred Jones Senior Technical Fellow Cybersecurity Research, Raytheon Technologies</p>	<p>ME/SoS 1559890 (Panel)</p> <p>The Role of Digital Engineering Environments (DEE) in Delivering Multi-Domain Operations (MDO)-enabling System of Systems</p> <p>Steven Geary Chief Engineer, Integrated Defense Solutions, BAE Systems</p> <p>Donavan Taylor BAE Systems</p> <p>Dr. John Braswell President/CEO, Crossflow Technologies</p> <p>Dr. Eric Sholes ESEP Systems Engineer, Crossflow Technologies</p>	<p>Arch/MOSA 1558220</p> <p>Model-Based Acquisition (MBAcq) User Group: Uniting Government and Industry through Collaborative Standardization</p> <p>Laura Hart NDIA Systems Engineering Division Vice Chair Engineering Research Engineer, Lockheed Martin</p>	<p>DEE 1560257</p> <p>Open, Collaborative, Scalable Digital Engineering: Multi-Disciplinary Modeling & Simulation Management</p> <p>David Green Principal Federal Programs, Ansys Inc.</p>	<p>PBMS 1556469</p> <p>Digital Transformation in Program Office Environment</p> <p>Maj William Deavor, USSF Digital Engineering Futures Lead, USSF/AATS Engineering</p> <p>Giorgio Gaputan Deputy SE&I Digital Engineering Lead, ManTech International, USSF/AATS Engineering SE&I</p> <p>Madison Galvin Senior Member of the Technical Staff, The Aerospace Corporation, USSF/AATS</p>	<p>SE/SEE 1546734 (Panel)</p> <p>The Role of Humans and Human Engineering in the Systems Engineering Process</p> <p>Benjamin Schwartz Director of Human Engineering, Monterey Technologies, Inc.</p> <p>Tony Thomas Human Systems Integration Team Lead, NASA Langley Research Center</p> <p>Gordon Gattie Navy NAVSEA05H Integrated Warfare Systems Engineering</p> <p>Rick Maldonado Alpha US-HF, Lockheed Martin</p>	
10:30 – 11:00 am				<p>Arch/MOSA 1559201</p> <p>Assured Armaments Reference Architecture (AARA)</p> <p>Michael Brattoli Assured Armaments Reference Architecture (AARA) Lead, DEVCOM Armaments Center</p>	<p>DEE 1561251</p> <p>In Pursuit of a Digital Twin</p> <p>John McCrea Lead Engineer, MMIII Flight Destruct System, Beast Code</p>	<p>DEE 1561770</p> <p>Curating Digital Threads for Effective Decisions and Model Lifecycle Management</p> <p>Lonnie VanZandt Principal Solutions Architect, IntercaX</p>	
11:00 – 11:30 am	<p>SSE 1559086</p> <p>DoD Software Modernization and the Program Protection Plan</p> <p>Bradley Lanford Senior Software Engineer, OUSD (R&E) / SAIC</p>			<p>Arch/MOSA 1559651</p> <p>Payback DevSecOps Architecture: A new approach to weapon system software deployment and integration across interfaces</p> <p>Fred Jones Senior Technical Fellow, Cybersecurity Research, Raytheon Technologies Research Center</p>	<p>DEE 1561352</p> <p>Overcoming Barriers to Realize the DOD's Digital Engineering Strategy</p> <p>Chris Swickline Chief Digital Engineer, SAIC</p>	<p>PBMS 1559528</p> <p>The Air Force Sustainment Center's Digital Engineering / Model-Based Systems Engineering (MBSE) Framework for the Additive Manufacturing Digital Thread</p> <p>Matthew Hockenbrock USAF AFSC/EN</p>	<p>Defense Contractors Utilization Hazardous of Materials Management Program (HMMP) to Hazardous Materials (HAZMAT) Risk Assessment and Reporting.</p> <p>Samantha Clay Senior Principal System Safety Engineer, Raytheon</p>
11:30 am – 12:00 pm	<p>SSE</p> <p>Cyber Supply Chain Risk A System Security Engineering Requirement</p> <p>Holly Dunlap Principal System Security Engineer, Cyber Supply Chain Risk Management, The MITRE Corporation</p>		<p>Arch/MOSA 1548465</p> <p>Program Architecture Design and Rationalization</p> <p>Richard Franco Systems Engineer, The Boeing Company</p>	<p>DEE 1562285</p> <p>Digital Acquisition – Digital prototypes and executable models for proposal evaluation</p> <p>David Green Principal Federal Programs, Ansys Inc.</p>	<p>PBMS 1549529</p> <p>FireSat Case Study: Effectively Bridging MBSE and MBD</p> <p>Kirsten McCane Defense Industry Segment Manager, MathWorks</p>		

Lunch On Own

	3C1 – System Security Engineering	3C2 – ADAPT	3C3 – Architecture / MOSA	3C4 – Digital Engineering Environment	3C5 – Physics-Based Modeling and Simulation	3C6 – Integrated Program Management
	Cory Ocker	Robin Yeman	Bob Scheurer & Ed Moshinsky	Patrick Bains	Jonathan Backhaus	Stewart Tague & Michelle Storm
	SALON A	SALON B	SALON C	SALON D	SALON E	SALON F
1:00 – 1:30 pm	<p>SSE 1554750</p> <p>Training the DoD Acquisition Workforce in Secure Cyber Resilient Engineering: A Storyboard Approach Being Integrated into the Defense Acquisition University Credential Program</p> <p>Paul McMahon Contractor Support, OUSD (R&E)</p>	<p>ADAPT 1542797</p> <p>Systems Engineering Agility – Eight Strategic Aspects</p> <p>Rick Dove Independent</p>	<p>Arch/MOSA 1560612</p> <p>A Tale of Two OSAs: Integration of the DEWS Reference Architecture into the SOSA Technical Standard</p> <p>Dr. Steve Davidson Chief Scientist for Systems Architecture, MITRE Corporation</p>	<p>DEE 1559371</p> <p>Successful Digital Engineering Program Execution within the Constraints of DoD Acquisition Lifecycle Management</p> <p>Fredda Lerner Senior Engineering Specialist, Aerospace Corporation</p>	<p>PBMS 1560187</p> <p>Integrated Systems Driven Development & Simulation In A Digital Engineering Ecosystem</p> <p>David Ewing Director, Digital Engineering, SAIC</p>	<p>IPM 1556555</p> <p>How to Exploit DevSecOps Pipeline of Pipelines Data for Program Management</p> <p>William Nichols MTS, Carnegie Mellon University/ Software Engineering Institute</p>
1:30 – 2:00 pm	<p>SSE 1555155</p> <p>Fundamentals of Cross Domain Solutions in the DoD</p> <p>Singithi De Silva Cybersecurity Engineer, OUSD (R&E)</p>	<p>ADAPT 1546525</p> <p>The Need for New Agile Roles and Responsibilities in Government</p> <p>Cynthia Ferreira Federal Strategic Advisor, Scaled Agile, Inc.</p>	<p>Arch/MOSA 1562560</p> <p>Modeling Enterprise Software and Systems Architectures Using the UAF</p> <p>Matthew Hause Principal, Systems Strategy Innovation (SSI)</p>		<p>PBMS 1560665</p> <p>The Emerging Air Vehicle Government Reference Architecture</p> <p>Keith Siders Engineer, AFLCMC/EZSI</p>	<p>IPM 1549958</p> <p>A Fuzzy Quality Function Deployment Based Systematical Approach for Process Maturity Measurement</p> <p>Serhat Kaya Quality Engineer, Turkish Aerospace</p>
2:00 – 2:30 pm	<p>SSE 1554085</p> <p>Metrics-based Software Vulnerability Discovery Model to Support Cybersecurity Test & Evaluation</p> <p>Lance Fiondella Professor/Research Scientist, University of Massachusetts Dartmouth/US Army Corps of Engineers Engineer Research and Development Center</p>	<p>ADAPT 1546531</p> <p>Agile Acquisition of Safe Services for Government</p> <p>Cynthia Ferreira Federal Strategic Advisor, Scaled Agile, Inc.</p>	<p>Arch & ME 1522971</p> <p>Linking UAF and SysML Models: Achieving Alignment between Enterprise and System Architectures</p> <p>Dr. James Martin System Architect, Aerospace Corporation</p>	<p>DEE 1527466</p> <p>Accelerating Digital Transformation using a Longitudinal Assessment Survey of Strategic Adoption Conditions (LASSAC)</p> <p>Joseph Campagna Associate Director, Systems Engineering, RTX PhD Candidate, Worcester Polytechnic Institute</p>	<p>PBMS 1565328</p> <p>Developing a Model-Based Request for Proposal for Legacy Aircraft Sustainment</p> <p>Cole Piper Fuze Engineer, Air Force Institute of Technology</p>	<p>IPM 1552618</p> <p>How To Assess and Progress Your Digital Engineering Maturity</p> <p>Toni Nolder Digital Communication Satellite System Engineer, The Aerospace Corporation</p>

2:30 – 3:00 pm

Networking Break with Tabletop Exhibitors
MAIN BALLROOM FOYER

	3D1 – Test & Evaluation	3D2 – ADAPT	3D3 – Architecture & Mission Engineering	3D4 – Digital Engineering Environment	3D5 – Physics-Based Modeling and Simulation	3D6 – Integrated Program Management
	Jeff Bilco	Robin Yeman	Bob Scheurer & Ed Moshinsky	Patrick Bains	Jonathan Backhaus	Stewart Tague & Michelle Storm
	SALON A	SALON B	SALON C	SALON D	SALON E	SALON F
3:00 – 3:30 pm	<p>T&E 1549000</p> <p>Model-Based Test and Evaluation Master Plan Concept</p> <p>Randy Saunders Principal Investigator, Johns Hopkins University APL</p>	<p>ADAPT 1551886</p> <p>How Agile Enables FOSS Usage and Modernization</p> <p>Kurt Mohr Director, Intelligence & Space Common Engineering, Raytheon</p>	<p>Arch & ME 1559610</p> <p>Digital Mission Architectures - Challenges and Opportunities for Mission Engineering and Integration</p> <p>Jaime Bestard Chief Engineer, Digital Mission Architecture, OUSD (R&E)</p>	<p>DEE 1559101</p> <p>Digital Engineering: Practical Considerations for Implementation across the System Lifecycle</p> <p>Darryl Howell Sr. Systems Engineer, PCG</p>	<p>PBMS 1554864</p> <p>Transforming Perimeter Cybersecurity to a Zero Trust Strategy Using Model Based System Engineering (MBSE)</p> <p>Patrick Meharg Chief Architect - Model Based System Engineering</p>	<p>IPM 1552748</p> <p>Driving Digital Transformation with Contracts</p> <p>Capt Alex Ciolek, USSF System Safety Program Manager, USSF/AATS Engineering</p> <p>Tyler Peterson SE&I Digital Engineering Lead, ManTech International, USSF/AATS Engineering SE&I</p> <p>Toni Nolder Associate Director, Space Architecture Dept., The Aerospace Corporation, USSF/AATS</p>
3:30 – 4:00 pm	<p>T&E 1561004</p> <p>Adopting a New Perspective on Test and Evaluation to Accelerate Digital Acquisitions</p> <p>Amanda Tierney Senior Acquisition Integration Engineer, Air Force Test Center</p>	<p>ADAPT 1560557</p> <p>Agile System Engineering Planning and Integration of Design Reviews</p> <p>Paul Zajac Fellow, Lockheed Martin</p>	<p>Arch & ME 1550961</p> <p>Digital Engineering and Meta-Architectures for Missions Engineering</p> <p>Richard Thelked PhD Student, Missouri University of Science & Technology</p> <p>Dr. Cihan Dagli Professor of Engineering Management and Systems Engineering, Missouri University of Science & Technology</p>	<p>DEE 1556591</p> <p>SysML v2 Transition Guide</p> <p>Daniel Hettema Director of Digital Engineering, Modeling & Simulation, SE&A, OUSD (R&E)</p> <p>Frank Salvatore Senior Systems Engineer (Contractor Support), Digital Engineering, Modeling & Simulation, SE&A, OUSD (R&E)</p> <p>Emily Bak Systems Engineer (Contractor Support), Digital Engineering, Modeling & Simulation, SE&A, OUSD (R&E)</p>	<p>PBMS 1545892</p> <p>Identification and Mitigation of Security Classification Marking Challenges and Risks for Descriptive Models</p> <p>Ryan Noguchi Director, Space Architecture Department, Aerospace Corporation</p>	<p>IPM 1555093</p> <p>Internal Projects: The Nightmare of Systems Engineers</p> <p>Dr. Ahmet Guray Pehlivanoglu TUBITAK SAGE (The Scientific and Technological Research Council of Türkiye, Defence Industries Research and Development Institute)</p>
4:00 – 4:30 pm	<p>T&E 1556600</p> <p>Digital Engineering Enabled Automated Dashboards and Reports for Test Planning and Test Execution</p> <p>Dr. Daniel Scoggin Chief Systems Engineer, SAIC</p>	<p>ADAPT 1556340</p> <p>Tracking Performance in a DoD Agile/DevSecOps Environment</p> <p>Dr. Mike Orosz Research Associate Professor & Research Director, Decision Systems, University of Southern California Information Sciences Institute</p>	<p>Arch & ME 1562586</p> <p>Darth Vader's Secret Weapon - Implementing Mission Engineering with UAF</p> <p>Matthew Hause Principal, Systems Strategy Innovation (SSI)</p>	<p>E&T 1547577</p> <p>Proposed New Continuing Education and Development Plan for USAF Acquisition Engineers</p> <p>Richard Sugarman Department Head, Air Force Institute of Technology</p>	<p>IPM 1559938</p> <p>Context Sensitive Knowledge Management & Help system</p> <p>Tyler Kim Digital Engineer, SAIC</p>	
4:30 – 5:00 pm	<p>T&E 1556795</p> <p>Benefits & Challenges of applying Digital Twins & Hybrid Analytics in Testing & Evaluation Programs</p> <p>Vitor Lopes Pereira Senior Product Sales Manager - Digital Twins, Ansys</p>	<p>ADAPT 1560950</p> <p>Agile Systems Engineering Planning and Integration of Design Reviews - Reference Example</p> <p>Paul Zajac Fellow, Lockheed Martin</p>		<p>E&T 1559904</p> <p>Policy Options to Promote DoD-Defense Industry Collaboration in STEM Education and Workforce Development</p> <p>Dr. Payuna Uday Research Scientist, Systems Engineering Research Center (SERC)</p>	<p>PBMS 1560710</p> <p>Comparing Model Based Systems Engineering with Digital Engineering in Other Domains</p> <p>Charles Stirk Senior Research Engineer, GTRI</p>	<p>IPM 1560550</p> <p>Novel and Evidenced-Based Project Duration Forecasting for Acquisition Programs Characterized by Low-Volume Highly-Complex New Product Development</p> <p>Dr. Bruce Chehroudi Principal Rocket Propulsion Engineer, ManTech International, USSF/AATS Engineering SE&I</p>

5:00 pm

Closing Remarks Provided by Track Chairs

ON-DEMAND PRESENTATIONS

A Natural Language Processing-Based Approach to Automating the Maintenance Work Order Prioritization Process: Understanding Sentiments in Context-Aware Systems

Joshit Mohanty

PhD Student and Graduate Assistant, Old Dominion University

Cansu Yalim

PhD Student and Graduate Assistant, Old Dominion University

This research presents a natural language processing-based approach to understanding sentiments in maintenance reports, thereby reducing subjectivity in decision-making.

Cluster-Based Exploration of System Readiness Levels: Mathematical Properties of Interfaces

Justin Fu, PE

Student, The George Washington University

Thomas Mazzuchi, DSc

Professor of Engineering Management, Systems Engineering, and Decision Sciences, The George Washington University

Shahram Sarkani, PE, PhD

Professor of Engineering Management and Systems Engineering, The George Washington University

This research builds upon previous mathematical models of system readiness level to address their shortcomings and provide an accessible tool, benchmarked with simulation and past defense weapons program performance data, for the program manager to assess risk and effort prior to committing major resources.

Coordinating Program Risk Management with Model-Based Systems Engineering

Shannon Dubicki

Systems Engineering Manager, The Johns Hopkins University Applied Physics Laboratory

Risa Gorospe

Senior Systems Engineer, The Johns Hopkins University Applied Physics Laboratory

This presentation discusses how program risk management can be coordinated with Model-Based Systems Engineering (MBSE). We will discuss the challenges of implementing this as digital thread between risk management and system architecture. We will demonstrate a capability addressing some of these challenges using Cameo, JIRA, and other software.

Curating Digital Threads for Effective Decisions and Model Lifecycle Management

Lonnie VanZandt

Principal Solutions Architect, IntercaX

Knowledge enables us to make better decisions. We model in order to know more sooner – but modeling yields too much: we need curation to make apparent what is relevant. Curators are an important and overlooked role in digital engineering. Curators communicate knowledge from clutter. Curators need a digital thread platform for model-based engineering.

Evolving Digital Truth - MBE for Requirements, Architecture, and Verification

Ken Kubo

Director, Engineering Technologists, Northrop Grumman

Sarah Beshir

Systems Engineer, Northrop Grumman

This presentation will introduce approaches to establishing a technical baseline using Model-Based Engineering (MBE). The idea is to extend the utility of modeling to link requirements, system architecture, and verification approaches to provide a complete, consistent, and current understanding of the technical baseline - the system as it was, is, and will be.

From Nodes to Insights: Harnessing Graph Theory in the Lifecycle Modeling Language to Enhance Systems Engineering

Lilleigh Stevie, MS

Systems Engineer, SPEC Innovations

Steven Dam, PhD ESEP

President and COO, SPEC Innovations

This paper discusses how to apply requirements analysis, functional analysis, risk analysis, and other systems engineering techniques to improve the development and implementation of policies.

How Ted Lasso Helps Us Lead the Agile Change at Lockheed Martin: A Tale of Servant Leadership

Jordan Stoner

Agile Coach, Lockheed Martin

Anthony Earl

Agile Coach, Lockheed Martin

Using quotes and explanations from the show Ted Lasso, a discussion of British English vs. US English, and how we helped Lockheed Martin stand up Agile programs.

Leveraging Digital Engineering for the Design of Hypersonic Vehicles

Valerio Viti

Aerospace and Defense Team Lead, Ansys Inc.

In this discussion, we will present the concept of the digital prototype for a hypersonic system. The prototype is based on physics simulations and, when available, test and evaluation data. Select number of validations of the individual physics modeling will be presented to substantiate the framework of the digital twin.

MBEasy: Making MBSE Easy Again

Mark Vriesenga

Director, Engineering, BAE Systems

We discuss and dispel many of the misconceptions surrounding MBSE that prevent organizations from succeeding with MBSE. For each misconception, we provide an alternative perspective which, when integrated into an organization's engineering process, may provide clarity of purpose, acceleration of work, and improved value for MBSE activities.

Model Based Functional Development and Verification of a Digital Beam Forming Antenna for a UAV Application 2

Prem Andrade

Distinguished Engineer, Ansys Inc.

Aniruddha Mukhopadhyay, PhD

Lead Chief Technologist, Ansys Inc.

A model based functional development and verification of a digital beam forming antenna mounted on an unmanned air vehicle in the context of a design reference mission is presented.

Predictive Resilience Modeling

Lance Fiondella

Professor, University of Massachusetts Dartmouth
Research Scientist, US Army Corps of Engineers, Engineer Research and Development Center

Priscila de Paula Silva

PhD Student, University of Massachusetts Dartmouth

Resilience is the ability of a system to respond, absorb, adapt, and recover from a disruptive event. This talk presents alternative approaches to model and predict performance and resilience metrics with elementary techniques from reliability engineering and statistics.

The Octopus Problem: The Need for Model Curation to Preserve and Share Knowledge

Matthew Hause

Principal, SSI

Mitchel Brooks

Systems Engineer, SystemXI

An octopus is an intelligent creature able to solve complex problems. As a solitary this knowledge is not passed on. In Model-Based Systems Engineering projects, this knowledge includes problem solving techniques, algorithms, libraries, patterns, interfaces, components, etc. A model curation standard must be created to share model artifacts.

The Systems Engineer's Blindspot: Strategic Context

Justin Blevins

Chief Digital Engineer, SAIC

Strategic context has a profound impact on the final system design, yet few Systems Engineers make considerations to represent strategic context in the system's design data. This presentation will define strategic context and make recommendations on how to use modern systems engineering techniques to capture strategic context in a system's design.

UAF Style Guide and Model Validation

Julie Cannon

Digital Engineer, SAIC

Enterprise Model Style Guide to utilize as a tool for developing enterprise-level models.

Using the Unified Architecture Framework in Support of Mission Engineering Activities

James Martin

Distinguished Engineer, Aerospace Corporation

This presentation will discuss how architecture views in the Unified Architecture Framework (UAF) can be used when doing Mission Engineering studies. UAF provides a framework of standardized views from which to model different aspects of an architecture, including the various concepts and properties of the mission being engineered.