WEDNESDAY, OCTOBER 24

Modeling & Simulation 1	Modeling & Simulation 2	System Security Engineering (SSE)	Systems Engineering Effectiveness	Software Engineering	Mission Engineering	Engineered Resilient Systems (ERS)	Program Management	Interoperability and Network Centric Operations
Audubon B	Audubon C	Audubon D	Audubon E	Audubon F	White Ibis	Snowy Egret	Wilson's Plover	Sandhill Crane
8:00 am 21494 DoD Digital Engineering Implementation Challenges and Recommendations **Philomena Zimmerman** OUSD(R&E)	21322 Analyzing System Alternatives Through Architecture Simulation **Dennis Chapman** U.S. Army RDECOM ARDEC	21527 Welcome and System Security Engineering Council Highlights **Holly Dunlap** Raytheon Company	21407 Panel: Methods for Accelerated Delivery of Capability – What Does It Take to Go Fast? **D. Scott Lucero** OUSD (R&E) *Moderator* **Thomas McDermott** Stevens Institute of Technology **Troy Peterson** INCOSE **Laura Freeman** Institute for Defense Analyses **Bess Dopkeen** DoD Cost Assessment and Program Evaluation	21747 Software Acquisition: Facing the Challenge, Valuing Velocity! **James Thompson** OUSD (R&E)	21289 Closing the Loop Between Missions and Acquisition **Ronald Kratzke** Vitech Corporation	21553 The Role of High-Performance Computing, High-Fidelity Physics, and Large-Data Analytics in DoD Acquisition **David Richards** U.S. Army Engineer Research and Development Center	21352 PARCA: IBR's in DoD – Joint Situational Awareness **John McGregor** OUSD (A&S) PARCA	21391 Overview & Track Context **John Daly** Booz Allen Hamilton
8:30 am 21367 Uncovering Cascading Vulnerabilities in Model-Centric Acquisition Programs **Donna Rhodes** Massachusetts Institute of Technology	21404 Iterative Analysis Between MBSE Software and External Tools **MAJ Stephen Gillespie** U.S. Military Academy	21405 DoD Approach for Engineering Cyber-Resilient Weapon Systems and Program Protection **Melinda Reed** OUSD (R&E)		21735 Driving Revolutionary Change in DoD Software Design and Acquisition **Joseph Elm** L-3 Technologies	21339 Digital Engineering Support to Mission Engineering **Judith Dahmann** MITRE Corporation	21559 Changes within the DoD High Performance Computing Modernization Program in Response to DoD Demand Signals and to Support Engineered Resilient Systems **Robert Wallace** Department of Defense HPCMP	21449 Session Title **Michael Williamson** Lockheed Martin Missiles and Fire Controldav	21293 Acquisition Agility: Reciprocity and Efficiencies in Approved Products List Testing **Danielle Mackenzie** DISA JITC
9:00 am 21398 Is There a Simple Ontology We Can Use for Digital Engineering? **Warren Vaneman** Naval Postgraduate School	21438 Affordable Resilient Architectural Trades in Next Generation Defense Systems **Marilee Wheaton** The Aerospace Corporation	21474 Cyber Resiliency for AF Weapon Systems **Daniel Holtzman** U.S. Air Force		21736 Industry Best Practices for Iterative Software **Robin Yeman** Lockheed Martin	21388 Mission Assurance Through Energy Assurance – Measuring Mission Effectiveness and Resilience Through Disruption **John Collins** Idaho National Laboratory	21605 The CREATE Element of the U.S. DoD HPC Modernization Program – Past, Present, and Future **Robert Meakin** High Performance Computing Modernization Program	21368 Program Risk/Opportunity Management, It's Not Just Technical Anymore **Vaughn Schlegel** Lockheed Martin	21417 Lessons Learned from Tactical Radio Interface Standardization **Don Stephens** Joint Tactical Networking Center
9:30 am		NETWORKING BREAK – AUDUBON FOYER			NETWORKING BREAK – AUDUBON FOYER			
10:00 am 21390 Modeling Digital Engineering Transformation: The Program Authoritative Source of Truth **Thomas McDermott** Stevens Institute of Technology	21509 How Model-Based Systems Engineering with SysML Helps in Complex Systems Design **Saulius Pavalkis** No Magic, Inc.	21561 Systems Engineering Resiliency and Security Engineering Lead **Dawn Williamson** Northrop Grumman Corporation	21555 Developmental System Requirements for Mobility in **Doris Turnage** U.S. Army Corps of Engineers	21740 Integrating Systems Engineering with a Software Factory **Sarah Sheard** Software Engineering Institute	21540 Role of Industry in Mission Engineering **William Miller** Stevens Institute of Technology	21586 ERS Recent Developments and Plans **Owen Eslinger** U.S. Army Engineer Research and Development Center	21516 Collaboration Between Systems Engineers and Program Managers **Lisa Hoffman** AAR Mobility Systems	21515 Architecture Nomograph a Visual Validation Tool for DODAF Products **Mark Gibson** Engility Corporation
								Human Systems Integration (HIS) Sandhill Crane
10:30 am 21401 Modeling Digital Engineering Transformation: Workforce and Culture **Thomas McDermott** Stevens Institute of Technology	21426 De-Mystifying Model-Based Systems Engineering **Warren Vaneman** Naval Postgraduate School	21535 The Value of Using Systems Engineering to Sharpen the Spear Against the Cyber Threat **Richard Massey** The Boeing Company	21422 Streamline Defense Industry Performance with CMMI V2.0 **Ron Lear** CMMI Institute **Kevin Schaaff** CMMI Institute	21741 Integrating Systems Engineering with a Software Factory **Sarah Sheard** Software Engineering Institute	21392 Considerations in Modeling Defense Capabilities at the Mission Level of Performance **John Daly** Booz Allen Hamilton	21492 Leveraging ERS to Enable Digital Engineering for Rotorcraft Acquisition **Marvin Moulton** U.S. Army RDECOM	21386 The Systems Integrator – Who Has the Monkey? **Steven Jones** Defense Acquisition University	21333 Department of Defense Human Systems Integration Initiatives **Andrew Monje** OUSD (R&E)

	Modeling & Simulation 1	Modeling & Simulation 2	System Security Engineering (SSE)	Systems Engineering Effectiveness	Agile in Systems Engineering	Mission Engineering	Engineered Resilient Systems (ERS)	Program Management	Human Systems Integration (HIS)
	Audubon B	Audubon C	Audubon D	Audubon E	Audubon F	White Ibis	Snowy Egret	Wilson's Plover	Sandhill Crane
11:00 am	21337 Exchanging Digital Artifacts for the Engineering Life Cycle **Philomena Zimmerman** OUSD (R&E)	21556 Frenemies: OPM and SysML Together in an MBSE Model **Matthew Hause** PTC	21381 Leveraging Systems Modeling to Assess and Mitigate Cyber-Based Mission Risk: A Cybersecurity Architecture Framework **Everett Oliver** George Washington University	21749 SERC Capstone Marketplace: A Platform to Engage Engineering Undergraduates in Systems Engineering While Working on Real Problems and Operational Needs **Capt William Shepherd, USN (Ret)** Systems Engineering Research Center	21742 Managing Complexity with Agility and Openness **Larri Rosser** Raytheon Intelligence Information and Services	21432 Experiences in Experimentation Supporting Mission Engineering of Multi-Domain Capability **Gene Bergmeier** Lockheed Martin Corporation	21536 Flexible Web Based Workflow Automation **Dharhas Pothina** U.S. Army Engineer Research and Development Center	21441 Cost-Based Risk Management for Mission Critical Microgrids **Robert Baker** Colorado State University	21378 User-Centric Systems Engineering; Integrating User Experience Design with Traditional Systems Engineering **Radhika Patel** U.S. Army ARDEC
11:30 am	21428 Critical MBE Themes that Enable a Collaborative Government-Industry Digital Engineering Process Throughout the DoD Acquisitions Lifecycle **Zhigang Pan** Northrop Grumman Corp.	21304 Architecture-Drive Assurance for Avionic Systems **Dan Bliek** Rockwell Collins	21341 Hardware Assurance (HwA) Through the Lifecycle **Raymond Shanahan** OUSD (R&E)	21564 Helix: Developing an Understanding of Organizational Systems Engineering Effectiveness **Nicole Hutchison** Stevens Institute of Technology		21389 Mission Engineering Update **James Thompson** OUSD(R&E)	21552 Deep Data Analytics for Engineered Resilient Systems (ERS) **David Stuart** U.S. Army Engineer Research and Development Center	21242 Integrated Baseline Review **Andrea Nibert** Leidos	21562 Meeting User Needs: Tailoring Human Systems Integration (HSI) for DoD Agile & DevOps **Ariana Kiken** Pacific Science & Engineering Group
12:00 pm	NETWORKING LUNCH – AUDUBON A					NETWORKING LUNCH – AUDUBON A			
1:00 pm	21331 Maximizing the Utility of Data and Emerging Technology with System of Systems and Big Data Analytics **Claudia Rose** BBII Enterprises	21374 MBSE for SOCOM JATF-TALOS **Bjorn Cole** Georgia Tech Research Institute	21507 Mission Thread Analysis Methods for Identification of Critical Components **Suzanne Hassell** Raytheon Company	21423 Estimate to Complete Development & Analysis **Michael Campbell** SPEC Innovations	21361 Semantic Versioning and Automated System Build Assembly **Duane Spence** Raytheon Company IIS	21510 Mission Engineering Competencies **Nicole Hutchinson** Stevens Institute of Technology	21532 LM Overview of the AFRL/ ERS EXPEDITE Program **Clifton Davies** Lockheed Martin Aeronautics	21243 Estimate to Complete Development & Analysis **Andrea Nibert** Leidos	21489 Human Systems Integration Risk Management Tool **Bill Kosnik** Air Force Space Command
						Architecture			
						White Ibis			
1:30 pm	21435 Accomplishing Complex NAVSEA Frigate Systems with Digital End-to-End MBSE Development in Enterprise Architecture and Systems of Systems Architectures and Engineering **John Sahlin** Engility Corporation	21451 MBSE Design Pattern for Non-Standard Interfaces **David Wood** Harris Corporation	21335 Long-Term Strategy for DoD Assured Microelectronics Needs and Innovation for National Economic Competitiveness **Raymond Shanahan** OUSD (R&E)	21557 Integrating Descriptive and Analytical System Models **Ronald Kratzke** Vitech Corporation	21362 Transforming Systems Engineering for DevOps **Brian Davenport** Raytheon Company	21413 MOSA – Key Points for Implementation from the NDIA Architecture Committee **Edward Moshinsky** Lockheed Martin	21297 ERS Ontology-Assisted Simulation Environments **Randy Ramsey** Raytheon Company	21377 Use of Other Technology Agreements for Department of Defense Research and Development **Andrea Belz** University of Southern California	21427 Simpath?: A Computational Model to Facilitate Human Systems Integration Evaluations **Elizabeth Weldon** Georgia Tech Research Institute **C.J. Hutto** Georgia Tech Research Institute

WEDNESDAY, OCTOBER 24

Modeling & Simulation 1	Modeling & Simulation 2	System Security Engineering (SSE)	Systems Engineering Effectiveness	Agile in Systems Engineering	Architecture	Engineered Resilient Systems (ERS)	Program Management	Human Systems Integration (HIS)
Audubon B	Audubon C	Audubon D	Audubon E	Audubon F	White Ibis	Snowy Egret	Wilson's Plover	Sandhill Crane
2:00 pm 21523 Interdiction: The Application of SysML State Machines to Cybersecurity **Michael Vinarcik** Booz Allen Hamilton	21309 Formal and Probabilistic Modeling in the Engineering of Resilient Multi-UAV Swarms **Azad Madni** University of Southern California SSI	20591 Systems Engineering Challenges for Integrating Software Assurance into Defense Systems Throughout the System Acquisition Lifecycle **Kenneth Nidiffer** Software Engineering Institute	21554 Senior Business Process Manager **Geoff Draper** Harris Corporation	21363 Going DevOps in GovCloud – Trials and Travails of Standing Up a DevOps Pipeline in AWS **John Mallinger** Raytheon Company	21366 Your Father's Architecture: Does it Matter Anymore – Is it the Critical Piece or a Waste of Money? **Michael Coughenour** Lockheed Martin	21425 Securing the ERS Digital Workflow **Greg Eakman** BAE Systems	21346 Acquisition Agility Act of FY 2017 NDAA **Robert Gold** OUSD (R&E)	21440 Combat Operations Center Hazardous Noise Root Cause Analysis **Rachael Lund** NSWC Dahlgren Division
2:30 pm NETWORKING BREAK – AUDUBON FOYER				NETWORKING BREAK – AUDUBON FOYER				
3:00 pm 21279 Phoenix: The Rebirth of RFESS **Quintina Jones** Raytheon Company Missile Systems	21579 Pattern Based Systems Engineering and the Smart Enterprise **Troy Peterson**	21400 Joint Federated Assurance Center (JFAC) Update 2018 **Thomas Hurt** OUSD (R&E)	20812 Affordable Rocks (and Batteries) – A Lighthearted Dialogue About Value **Mike Yokell** Lockheed Martin	21364 Infrastructure as Code – Moving to Hardware Defined Infrastructure **Brian Davenport** Raytheon Company	21439 Leveraging MOSA Practices to Educate the Acquisition Workforce **Yvette Rodriguez** Defense Acquisition University	21529 ERS is the Catalyst for Collaboration between Industry and Government in Aviation System Modeling **David Quinn** U.S. Army	21528 Integration of Parametric Cost Estimation with System Architecture – It's a Dirty Job but Someone Has To Do It! **Barry Papke** No Magic, Inc. **Gan Wang** BAE Systems	21323 Embedding Human Systems Integration Within Systems Engineering Processes – A Peek into the Draft HSI MIL Handbook **Sarah Orr** AF 711th Human Performance Wing HSI Directorate **Jessica Shihady** AF 711th Human Performance Wing HSI Directorate
3:30 pm 21305 Key Support Analysis Data used for Modeling a Global Spares Pool **Camille Lewis** Lockheed Martin	21466 Collaboration in an Authoritative Source of Truth Environment using Open MBEE **Benjamin Kruse** Stevens Institute of Technology	21570 Considering Cyber-Resilience and Sustainment Supply Chain within a Blockchain (Shared Ledger) Paradigm **Charles Miller** Raytheon Company	20813 Complications with Using Affordability Efficiency Measures **Mike Yokell** Lockheed Martin	21375 Systems Engineering for Highly Rapid Development: The Parallel Agile Process **Doug Rosenberg** Parallel Agile, Inc. **Barry Boehm** University of Southern California	21357 Comprehensive Architecture Strategy **Marcell Padilla** CRL Technologies, Inc.	21519 Engineered Resilient Systems – Enabling Analysis of Large-Scale Maintenance Data through Innovative Techniques **Maria Seale** USACE Engineer Research and Development Center	21376 Technology Advancement in NASA's Small Business Innovation Research Program **Andrea Belz** University of Southern California	21308 Toward Next Generation Adaptive Cyber-Physical-Human Systems **Azad Madni** University of Southern California
4:00 pm 21320 CREATE as an Early Example of a DoD "Software Factory" **Richard Kendall** High Performance Computing Modernization Office	21338 An MBE Manifesto **Edward Carroll** Sandia National Laboratories **Chris Schrieber** Lockheed Martin Corporation	21402 Advancing DoD Software Assurance (SwA) **Thomas Hurt** OUSD (R&E)		21469 Principled Design vs. Designing for Principles **Erin Ryan** The Aerospace Corporation	21565 Actionable Architecture through Aspect Modeling **Laura Hart** MITRE Corporation	21687 Computational Analyses in Support of the World's Best Hypersonics Systems **Col Kelly Tucker** SAF/AQR	21298 Readiness Level Assessment Tool for Nuclear Weapons Programs **Glenn Bell** National Nuclear Security Administration	21395 Engineering the Complete System: Hardware, Software, AND People **Michael Pietryga** Air Force 711th Human Performance Wing HSI Directorate
4:30 pm 21538 On the Topic of Navy Antiship Missile Threat Modeling and Simulation Requirements **Warren Boord** NSWC/DD	**Frank Salvatore** Engility Corporation **Bill Schindel** ICTT **Sharon Trauth** Sandia National Laboratories **Dana Grisham** Sandia National Laboratories **Nancy Hayden** Sandia National Laboratories	21311 Industry Thoughts on a Market of Assured and Trustworthy Complex Cyber/Physical Systems **Robert Martin** MITRE Corporation			21345 Session Title **Col Steve MacLaird, USAF (Ret)** Object Management Group	21424 Challenges and Opportunities for High-Fidelity Computational Modeling to Support Future Vertical Lift **Andrew Wissink** U.S. Army Aviation Development Directorate, AMRDEC	21287 The Excellent 3-in-1 Systems Engineering Tool (SET)! **Denise Shealey** AFLCMC/EZSI	

THURSDAY, OCTOBER 25

	Modeling & Simulation 1	Modeling & Simulation 2	System Security Engineering (SSE)	Environment, Safety & Occupational Health (ESOH)	Tool Vendor Demonstrations for MBSE/Digital Engineering	Architecture	Engineered Resilient Systems (ERS)	Development Test & Evaluation (DT&E)	System of Systems (SOS)
	Audubon B	Audubon C	Audubon D	Audubon E	Audubon F	White Ibis	Snowy Egret	Wilson's Plover	Sandhill Crane
8:00 am	**21415** What's the Difference Between Digital Engineering and Product Lifecycle Management (PLM)? **Steven Dam** SPEC Innovations	**21328** A Model-Based Requirements Engineering Framework for Developing Military Healthcare Delivery Requirements **Steven Biemer** Johns Hopkins University	**21410** Software Assurance Concept of Operation – Advancing Software Assurance in the Modern Age **Kenneth Nidiffer** CMU Software Engineering Institute **Bradley Lanford** Engility Corporation	**21343** Operationalizing the Munitions Risk Management Assessment Process **Mark Peterson** Booz Allen Hamilton, Carderock Division	**21351** Discovering Tool Capabilities to Support Engineering Activities **David Long** Vitech	**21419** Implementing DoDAF and UAF **Steven Dam** SPEC Innovations	**21548** A Digital Exploration of System Trade-Offs **Greg Eakman** BAE Systems	**21472** MBSE for Developmental Test & Evaluation **Gary Honea** Raytheon Company	**20627** Status of the Development of International Standards for Systems of Systems **Mike Yokell** Lockheed Martin
8:30 am	**21522** Semantic Web Technology Architecture to Enable Digital Thread **Mark Blackburn** Stevens Institute of Technology	**21370** Understanding Discontinuous Technologies Using Model-Based Systems Engineering (MBSE) Behavior Models **Wendy Golden** Aerospace	**21416** Systems Engineering Considerations for Achieving System Resilience **Michael McEvilley** MITRE Corporation	**21748** Impact Assessment and Technology Road Map for Chromium **Drew Rak** Noblis	**21351** Discovering Tool Capabilities to Support Engineering Activities **Steven Dam** Spec Innovations	**21371** The Sensor Open Systems Architecture (SOSA) Initiative in a Nutshell **Steven Davidson** Raytheon Company	**21433** Architecting Resilient Systems with Design Structure Matrices and Network Topology Analysis **Robert Hill** George Washington University	**21396** A Model-Based Framework to Evaluate Total System Performance of Unmanned Surface Vessels (USV) **Daniel Veit** George Washington University	**20628** Overview of System of Systems (SoS) Managerial and Operational Affinity – Assessing and Improving Relationships Within Systems of Systems **Mike Yokell** Lockheed Martin
9:00 am	**21568** A Systems Engineering Tools Ecosystem **Matthew Hause** PTC	**21385** A Model-Based Systems Engineering Approach to Communicating and Verifying Dynamic Requirements in Contracted System Development **Donald Barrett** George Washington University	**21447** Cybersecurity the Systems Engineering Way **David Olmstead** Lockheed Martin	**21420** Use of Draft MIL-STD-882E, Task 108, to Prohibit & Eliminate Cr6+ **Gene McKinley** U.S. Air Force	**21351** Discovering Tool Capabilities to Support Engineering Activities **Dirk Zwemer** Intercax			**21517** Network Analysis of SysML Data to Inform Test and Evaluation **MAJ Stephen Gillespie** U.S. Military Academy	**21280** Mission Engineering and Prototype Warfare: Operationalizing Technology Faster to Stay Ahead of the Threat **Matthew Horning** U.S. Army TARDEC
9:30 am	**NETWORKING BREAK – AUDUBON FOYER**					**NETWORKING BREAK – AUDUBON FOYER**			
10:00 am	**21353** Model-based Systems Engineering (MBSE): Using Semantic Web Technology to Enable Integration **Roshan Patel** U.S. Army RDECOM ARDEC	**21443** A Model-Based Systems Engineering Approach to Communicating and Verifying Dynamic Requirements in Contracted System Development **Donald Barrett** George Washington University	**21342** Enhancing DoD Technological Advantage **Brian Hughes** OUSD (R&E)	**21412** Leveraging System Safety to Improve System Security **Michael McEvilley** MITRE Corporation	**21351** Discovering Tool Capabilities to Support Engineering Activities **Jason Wilson** No Magic, Inc.	**21359** Modular Open Systems Approaches (MOSA) Panel: Discussion of MOSA Frameworks **Philomena Zimmerman** OUSD (R&E) *Moderator* **John Bowling** Air Force Life Cycle Management Center **Kenneth O'Driscoll** NAVAIR 4.1.2.1 **John Stough** PEO Aviation **Daniel Torres** US Army TARDEC	**21240** Preparing Chief Engineers for the Digital Engineering Transformation **Lt Col Karl Schwenn** Credence Management Solutions	**21293** Acquisition Agility: Reciprocity and Efficiencies in Approved Products List Testing **Danielle Mackenzie** DISA JITC	**21284** Cyber-Physical Systems and System of Systems Architecting Tool **Cihan Dagli** University of Missouri Science and Technology
10:30 am	**21495** Model-Based Enterprise Maturity Model that Captures Both Digital Capability and Organizational Effectiveness **Jason Hatakeyama** The Boeing Company	**21541** Requirements Partitioning, the RMF, and MBSE **Ronda Henning** Harris Corporation	**21406** Systems Engineering Perspectives for Cybersecurity Requirements Derivation **Michael McEvilley** MITRE Corporation	**21313** MIL-STD-882E Revised Level of Rigor **Doug Peterson** AFMC/SES	**21351** Discovering Tool Capabilities to Support Engineering Activities **Gavin Arthurs** IBM		**21321** The Steps to Success: A Career Development Model Based on the New INCOSE SE Competency Framework **Don Gelosh** Worcester Polytechnic Institute		**21411** Lead Systems Integration: An Engineering and Management Strategy for System of Systems **Warren Vaneman** Naval Postgraduate School

Time	Modeling & Simulation 1 (Audubon B)	Modeling & Simulation 2 (Audubon C)	System Security Engineering (SSE) (Audubon D)	Environment, Safety & Occupational Health (ESPH) (Audubon E)	Tool Vendor Demonstrations for MBSE/Digital Engineering (Audubon F)	Architecture (White Ibis)	Education & Training (Snowy Egret)	Enterprise Health Management/Prognostics/Diagnostics/Reliability (Wilson's Plover)	System of Systems (SOS) (Sandhill Crane)
11:00 am	21330 Integrated Model Based Engineering **Nidal Eid** ARDEC	21360 INCOSE Systems Engineering Transformation **Troy Peterson** SSI	21403 Engineering Cyber-Resilient Weapon Systems (CRWS) Workforce Development Workshop **Melinda Reed** OUSD (R&E)	21310 Verifying Software Control Categories (SCCs) Using Quantitative Fault Tree Analyses (FTAs) **Robert Smith** Booz Allen Hamilton	21351 Discovering Tool Capabilities to Support Engineering Activities **Steven Goldner** Cadence	21359 Modular Open Systems Approaches (MOSA) Panel: Discussion of MOSA Frameworks **Philomena Zimmerman** OUSD (R&E) *Moderator* **John Bowling** Air Force Life Cycle Management Center **Kenneth O'Driscoll** NAVAIR 4.1.2.1 **John Stough** PEO Aviation **Daniel Torres** US Army TARDEC	21334 Manufacturing and Quality (M&Q) Body of Knowledge (BoK) **Andrew Monje** OUSD (R&E)		21430 An Attack Graph-Based Vulnerabilities Framework for Systems of Systems **Thomas Horan** U.S. Air Force
11:30 am	21521 Model-Based Engineering (MBE) Structures Viewed Through Axiomatic Investigation in Abstract Algebra & Application Implications **Jeffrey Havlicek** U.S. Air Force	21348 Transforming Large Scale DoD Organizations Into an MBSE Powerhouse **Cory Henry** Booz Allen Hamilton		21549 Unmanned System (UxS) IPT and Engineering Precepts for Safe Autonomy **Michael Demmick** NOSSA	21351 Discovering Tool Capabilities to Support Engineering Activities **Tony Davenport** Phoenix Integration		21344 Competency-Based Assessment of Systems Engineers: Results and Recommendations from a United Kingdom Pilot Program for INCOSE Certified Systems Engineering Professionals (CSEP) **Courtney Wright** INCOSE		21487 System of Systems Model Building and Acausal Simulation Environment **Peter Menegay** SynaptiCAD
12:00 pm	**NETWORKING LUNCH – AUDUBON A**					**NETWORKING LUNCH – AUDUBON A**			
1:00 pm	21286 Connecting the MBE Gap: Linking Systems and Hardware Designs through OSLC **Julie DeMeester** Raytheon Company	21468 Systems Engineering Transformation Surrogate Pilot Use Cases Enabling a New Operational Paradigm for Acquisition **Mark Blackburn** Stevens Institute of Technology	21310 Verifying Software Control Categories (SCCs) Using Quantitative Fault Tree Analyses (FTAs) **Robert Smith** Booz Allen Hamilton	21537 Digital Engineering **Philomena Zimmerman** OUSD (R&E)	21351 Discovering Tool Capabilities to Support Engineering Activities **Brian Chambers** Dassault	21354 MOSA Standards Showcase **Michael Heaphy** Defense Standardization Program Office **John Bowling** Air Force Life Cycle Management Center **Ken O'Driscoll** FACE **Benjamin Peddicord** CMOSS	21347 Empowering the Department of Defense Engineer **Robert Gold** OUSD (R&E)	21350 DMSMS/Obsolescence Panel **Robin Brown** Defense Standardization Program Office **Ethan Plotkin** GDCA **KiHo Kang** KIHOMAC **Lance Magnusson** Obsolescence Branch Manager at NUWC Division, Keyport	**Modeling & Simulation 3** (Audubon B) 21300 Model-Based Enterprise Capabilities Matrix Workshop **Joe Hale** NASA/MSFC **Al Hoheb** The Aerospace Corporation
1:30 pm	21327 Transforming Systems Engineering to Take Advantage of the Digital Revolution **Edward Kraft** University of Tennessee Space Institute	21498 Lesson Learned from Boeing's MBSE Implementation: Different Roles and Skill Sets Needed in a Successful MBSE Deployment **Glendora Ferguson** The Boeing Company	21412 Leveraging System Safety to Improve System Security **Michael McEvilley** MITRE Corporation	21355 Streamlining ESOH in Acquisition: What's on the Horizon? **David Asiello** OASD (EI&E)	21351 Discovering Tool Capabilities to Support Engineering Activities **Joe Colloca** PTC		21365 Modular Online Open SoSE Education and Training (MOOSE) **Judith Dahman** MITRE Corporation		
2:00 pm	21421 Turning the Digital Thread Into Reality **Steven Dam** SPEC Innovations	21409 Organizational Considerations for Effective Model-Based Systems Engineering Implementation **Warren Vaneman** Naval Postgraduate School	21313 MIL-STD-882E Revised Level of Rigor **Doug Peterson** AFMC/SES	21380 Adapting ESOH Risk Management for Rapid Prototyping and Rapid Fielding Programs **Lori Hales** Booz Allen Hamilton	21351 Discovering Tool Capabilities to Support Engineering Activities **Robert Bailargeon** Sodius		21418 What is the Future of Systems Engineering? **Steven Dam** SPEC Innovations		

	Modeling & Simulation 1	Modeling & Simulation 2	System Security Engineering (SSE)	Environment, Safety & Occupational Health (ESOH)	Tool Vendor Demonstrations for MBSE/Digital Engineering	Architecture	Education & Training	Enterprise Health Management/Prognostics/ Diagnostics/Reliability	Environment, Safety & Occupational Health (ESPH)
	Audubon B	Audubon C	Audubon D	Audubon E	Audubon F	White Ibis	Snowy Egret	Wilson's Plover	Audubon B
2:30 pm	BREAK – AUDUBON FOYER					BREAK – AUDUBON FOYER			
3:00 pm	21545 The Digital Twin Throughout the SE Lifecycle **Matthew Hause** PTC	21437 Model Based System Operations: Enabling Rapid Adaptability and Operational Resiliency in the Digital Era **T.J. Mathieson** Northrop Grumman Innovation Systems	21431 Leveraging Vulnerability Prediction Models to Aid Cyber Security Planning **Raymond Chow** Lockheed Martin	21312 Leveraging Industry Standards and Tools in ESOH Risk Management **Yvonne Pierce** The Boeing Company **Timothy Sheehan** Raytheon Company	21351 Discovering Tool Capabilities to Support Engineering Activities **David Green** Ansys	21369 Organizing, Acquiring, and Architecting for Strategically Proactive Obsolescence Management of Mission Critical Avionics and Electronic Control Systems **Markeeva Morgan** George Washington University	21403 Training the Cybersecurity Workforce **Melinda Reed** OUSD (R&E)	21307 Applying Science and Technology to Sustainment of Legacy Systems **Marilyn Gaska** Lockheed Martin	21429 The Supporting Acquisitions Strategic Objective: APHC Initiatives **Timothy Kluchinsky** U.S. Army Public Health Center
3:30 pm	21508 Integrating SysML with PLM Platform to Enable Enterprise MBSE Capabilities to Develop Right Systems Right on Time and on Budget **Gan Wang** BAE Systems **Saulius Pavalkis** No Magic, Inc.	21531 Application of MBSE in AGILE Development **Tamara Hambrick** Northrop Grumman Enterprise Services **Jason Forth** NAVAIR	21534 Risk, Issue, and Opportunity Management Guidance for Cybersecurity **Cory Ocker** Raytheon Company	21414 Naval Sea Systems Command's (NAVSEA) Approach for Managing the Risk of Hazardous Material Usage in New Acquisition **Jessica Klotz** NSWC, Carderock Division	21351 Discovering Tool Capabilities to Support Engineering Activities **Pieter Dermont** Modelon	21560 Mission Engineering, Digital Engineering, MBSE, and the Like: The One Underlying Essential Attribute **Robert Scheurer** The Boeing Company	21542 The Role and Challenges of Systems Engineering Professional Continuing Education **Ronald Phipps** Air Force Institute of Technology	21332 Update on R&M Engineering Activities: Rebuilding Military Readiness **Andrew Monje** OUSD (R&E)	21434 Assessment of Acoustic Energy and Hearing Protection Strategies in Support of Army Modernization **Olivia Webster** U.S. Army Public Health Center
4:00 pm	21563 Interoperate and Collaborate on Heterogeneous MBSE Models to Support Acquisition Process **Sanjay Khurana** Dassault Systems	21324 Continuous Virtual Integration **Rand Whillock** Adventium Labs	21308 Toward Next Generation Adaptive Cyber-Physical-Human Systems **Azad Madni** University of Southern California	21285 Environmental Life Cycle Assessment of Commercial Transportation Activities in the United States **Shelia Neumann** University of Texas at Arlington	21351 Discovering Tool Capabilities to Support Engineering Activities **Carlton Francis** Transmagic, Inc.		21566 The Systems Engineering Research Center (SERC): 10 Years of Progress **Nicole Hutchinson** Stevens Institute of Technology		21394 APHC support to the ALU CDC and JCIDS Processes **Robert Booze** U.S. Army Public Health Center
4:30 pm		21539 Use of Model- Based Systems Engineering (MBSE) to Improve Program Metrics **Howard Gans** Harris Corporation	21488 Integrating Systems Engineering, Cyber Security and Cyber T&E through MBSE **Barry Papke** No Magic, Inc.	21326 ESOH Risk Management in Middle Tier Acquisition **Sherman Forbes** AF/AQRE	21351 Discovering Tool Capabilities to Support Engineering Activities **Alan Mendel** Aras		21567 Outside-In Workshop: An Interactive SE Training Approach for High-Tech Organizations **Asmae Mhassni** Intel Corporation		21358 Revolutionizing Environment, Safety, and Occupational Health (ESOH) in Systems Engineering to Meet Rapid Prototyping/Fielding Under the Middle Tier of Acquisition **Corey Pressley Plakos** Naval Air Systems Command
5:00 pm	CONFERENCE ADJOURNS					CONFERENCE ADJOURNS			