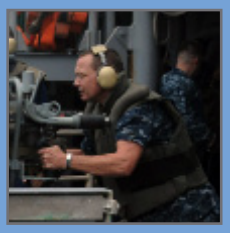
NDIA
National Defense Industrial Association

PROMOTING NATIONAL SECURITY SINCE 1919

THIS AGENDA INCLUDES:

15th ANNUAL SYSTEMS ENGINEERING CONFERENCE



OCTOBER 22-25, 2012

WWW.NDIA.ORG/MEETINGS/3870

HYATT REGENCY MISSION BAY ▸ SAN DIEGO, CA

EVENT #3870

SCHEDULE AT A GLANCE

SUNDAY, OCTOBER 21, 2012

5:00 pm – 7:00 pm	Registration Open – *Bayview Foyer*

MONDAY, OCTOBER 22, 2012*

*Additional fee required to attend Monday's tutorial session

7:00 am – 6:00 pm	Registration Open – *Bayview Foyer*
7:00 am – 8:00 am	Continental Breakfast – *Regatta Pavilion* (TUTORIAL ATTENDEES ONLY)
8:00 am – 9:45 am	Tutorial Tracks (TUTORIAL ATTENDEES ONLY)
9:45 am – 10:15 am	Morning Break
10:15 am – 11:45 am	Tutorial Tracks (TUTORIAL ATTENDEES ONLY)
11:45 am – 1:00 pm	Luncheon – *Regatta Pavilion* (TUTORIAL ATTENDEES ONLY)
1:00 pm – 2:45 pm	Tutorial Tracks (TUTORIAL ATTENDEES ONLY)
2:45 pm – 3:15 pm	Afternoon Break
3:15 pm – 5:00 pm	Tutorial Tracks (TUTORIAL ATTENDEES ONLY)
5:00 pm – 6:00 pm	**Networking Reception – Regatta Pavilion Open to All Conference Attendees!**

TUESDAY, OCTOBER 23, 2012

7:00 am – 5:00 pm	Registration Open – *Bayview Foyer*
7:00 am – 8:00 am	Continental Breakfast – *Regatta Pavilion*
8:00 am – 9:30 am	Plenary Session – *Bayview Ballroom*
9:30 am – 10:00 am	Morning Break – *Regatta Pavilion*
10:00 am – 12:00 pm	Plenary Session – *Bayview Ballroom*
12:00 pm – 1:30 pm	Luncheon – *Regatta Pavilion*
1:30 pm – 3:00 pm	Plenary Session – *Bayview Ballroom*
3:00 pm – 3:30 pm	Afternoon Break – *Regatta Pavilion*
3:30 pm – 5:00 pm	Plenary Session – *Bayview Ballroom*
5:00 pm – 6:30 pm	Networking Reception – *Regatta Pavilion*

WEDNESDAY, OCTOBER 24, 2012

7:00 am – 5:00 pm	Registration Open – *Bayview Foyer*
7:00 am – 8:00 am	Continental Breakfast – *Regatta Pavilion*
8:00 am – 9:45 am	Concurrent Sessions
9:45 am – 10:15 am	Morning Break – *Regatta Pavilion*
10:15 am – 12:00 pm	Concurrent Sessions
12:00 pm – 1:30 pm	Luncheon – *Regatta Pavilion*
1:30 pm – 3:15 pm	Concurrent Sessions
3:15 pm – 3:45 pm	Afternoon Break – *Regatta Pavilion*
3:45 pm – 6:05 pm	Concurrent Sessions
6:05 pm	Adjourn

THURSDAY, OCTOBER, 25, 2012

7:00 am – 3:30 pm	Registration Open – *Bayview Foyer*
7:00 am – 8:00 am	Continental Breakfast – *Regatta Pavilion*
8:00 am – 9:45 am	Concurrent Sessions
9:45 am – 10:15 am	Morning Break – *Regatta Pavilion*
10:15 am – 12:00 pm	Concurrent Sessions
12:00 pm – 1:30 pm	Luncheon – *Regatta Pavilion*
1:30 pm – 3:55 pm	Concurrent Sessions
3:55 pm	Adjourn

MONDAY, OCTOBER 22, 2012

	8:00 AM - 11:45 AM		1:00 PM - 5:00 PM
TRACK 1 BAYVIEW 3	**14762** - "System Security Engineering and Program Protection Case Study for the Materiel Solution Analysis Phase with Hands-On Exercises" Ms. Melinda Reed, *DoD*		**CONTINUED 14762** - "System Security Engineering and Program Protection Case Study for the Materiel Solution Analysis Phase with Hands-On Exercises" Ms. Melinda Reed, *DoD*
TRACK 2 BAYVIEW 2	**14907** - "An Introduction to the Use of Modeling and Simulation Throughout the Systems Engineering Process" Dr. James Coolahan, *Johns Hopkins University Applied Physics Lab*		**14810** - "Enterprise Architecture of Emergent Complex Adaptive Systems" Ms. Claudia Rose, *BBII*
TRACK 3 BAYVIEW 1	**14624** - "Agile Software Development in Defense Acquisition – A Mission Assurance Perspective" Dr. Peter Hantos, *The Aerospace Corporation*		**14831** - "Allied and Coalition Interoperability: Where and How DoD Gets and Sets the Systems Engineering Requirements for Weapons Systems Acquisition" Col Christopher Ptachik, USAF (Ret), *Alion Science & Technology (SAF/AQX Contractor)*
TRACK 4 MISSION 1	**14918** - "Using the SEBoK™ to Support Your Organization's Systems Engineering Practice" Ms. Nicole Hutchison, *Systems Engineering Research Center*	LUNCHEON	**14626** - "On Principles of Complex Systems Engineering-Complex Systems Made Simple" Dr. Brian White, *CAU-SES*
TRACK 5 MISSION 2	**14966** - "Leading Change – Transforming Traditional Tests with the Science of Test, Including Design of Experiments (DOE)" Mr. Gregory Hutto, *46 Test Wing*		**14963** - "Design of Experiments (DOE) in Systems Engineering" Dr. Mark Kiemele, *Air Academy Associates*
TRACK 6 MISSION 3	**14933** - "What Every Systems Engineer Ought to Know About Lean Six Sigma" Dr. Rick Hefner, *Northrop Grumman Corporation*		**NEW** - DT&E Metrics & Leading Indicators Workshop
TRACK 7 PALM 1	**14968** - "Tell Me What You Want, What You Really Really Want - Effective Requirements Engineering" Dr. William Bail, *The MITRE Corporation*		**14826** - "Integrating Systems Engineering with Earned Value Management" Mr. Paul Solomon, *Performance-Based Earned Value*
TRACK 8 PALM 2	**14521** - "Intellectual Property Considerations" Mr. William Decker, *Defense Acquisition University*		**14604** - "Independent Verification and Validation" Mr. Al Florence, *The MITRE Corporation*

TUESDAY, OCTOBER 23, 2012

7:00 am - 5:00 pm Registration – *Bayview Foyer*
7:00 am - 8:00 am Continental Breakfast – *Regatta Pavilion*
8:00 am - 9:30 am Keynote Speaker – *Bayview Ballroom*

KEYNOTE

BAYVIEW BALLROOM

KEYNOTE ADDRESS

- The Honorable Frank Kendall, *Under Secretary of Defense, Acquisition, Technology and Logistics*

9:30 am - 10:00 am Morning Break – *Regatta Pavilion*
10:00 am - 12:00 pm Plenary Session – *Bayview Ballroom*

PLENARY SESSION 1

BAYVIEW BALLROOM

CHIEF SYSTEMS ENGINEERS PANEL
"Solving Complex Engineering Challenges"

Moderator: Mr. Stephen P. Welby, *Deputy Assistant Secretary of Defense (Systems Engineering), Office of the Assistant Secretary of Defense (Research & Engineering)*
Panelists:

- Mr. Terence Edwards, *Office of the Secretary of the Army for Acquisition, Logistics and Technology*
- Mr. Ricardo Cabrera, *Office of the Deputy Assistant Secretary of the Navy for Research, Development, Technology and Engineering*
- Dr. Kenneth Barker, *Air Force Materiel Command*
- Mr. James D. Tuttle, *Director, Systems Engineering, Office of the Under Secretary of Science and Technology, U.S. Department of Homeland Security*
- Mr. Joseph Smith, *Office of the Chief Engineer, NASA*

12:00 pm - 1:30 pm Luncheon – *Regatta Pavilion*
1:30 pm - 3:00 pm Plenary Session – *Bayview Ballroom*

PLENARY SESSION 2

BAYVIEW BALLROOM

PROGRAM MANAGER'S PANEL
"Return on Investment in Systems Engineering: The PM Perspective"

Moderator: Col Donald W. Robbins, USAF, *Deputy for Systems Engineering Plans and Policy, Office of the Deputy Assistant Secretary of Defense for Systems Engineering*
Panelists:

- Col Rodney Miller, USAF, *Advanced Extremely High Frequency (AEHF)*
- CDR Scott Ledig, USN, *P-8A Poseidon*
- CDR John Gerken, USN, *Trident Guidance MK6 MOD1 Program (Government)*
- Mr. Brenan McCarragher, *Trident Guidance MK6 MOD1 Program (Industry)*

3:00 pm - 3:30 pm Afternoon Break – *Regatta Pavilion*

3:30 pm - 5:00 pm

Plenary Session – *Bayview Ballroom*

PLENARY SESSION 3

BAYVIEW BALLROOM

INDUSTRY SYSTEMS ENGINEERING PANEL

"How Has Effective Systems Engineering Benefited Our Defense Programs"

Moderator: Mr. Bob Rassa, *Director, Engineering Programs, Raytheon Space & Airborne Systems; Chair Emeritus, NDIA Systems Engineering Division*

Panelists:

- Mr. Craig Miller, *Vice President, Systems Engineering, Harris Corporation*
- Mr. Jeff Wilcox, *Vice President, Engineering, Lockheed Martin*
- Mr. Frank Serna, *Director, Systems Engineering, The Charles Stark Draper Laboratory, Inc.*
- Mr. Chris Orlowski, *Corporate Director, Engineering, Northrop Grumman*

5:00 pm - 6:30 pm

Networking Reception – *Regatta Pavilion*



CONFERENCE DESCRIPTIONS

AFFORDABILITY

Session Chair: Mr. Frank Serna

A key element of managing affordability is establishing affordability baselines. These papers address frameworks, approaches and methodologies for establishing, estimating, and tracking affordability on programs.

AGILE SYSTEMS ENGINEERING

Session Chair: Ms. Joan Nolan

Today's systems are increasingly complex and operate in a system of systems environment which is rapidly evolving. These papers address the application of agile concepts in systems engineering to address the issue encountered in this environment.

ARCHITECTURE

Session Chairs: Ms. Barbara Sheeley & Dr. Steven Dam

System architectures provide the framework to pull together customer needs and system requirements with system definition. These papers provide some insight into current architecture innovations, including highlights of the results of the NDIA Architecture Subcommittee work.

EARLY SYSTEMS ENGINEERING

Session Chairs: Mr. John Lohse & Mr. Jeff Loren

These sessions begin with out-briefs for the NDIA and MORS workshop followed by real program examples of development planning. The sessions include senior service perspective and papers dealing with life cycle and total ownership cost issue.

EDUCATION AND TRAINING

Session Chairs: Dr. Don Gelosh, Mr. Garry Roedler & Ms. Nicole Hutchinson

The theme of this year's Education and Training track is "The Bond between Professional Systems Engineers and Academia." This track is an excellent mix of two panel sessions and twelve presentations from government, industry, and academia that describe various initiatives, programs, and perspectives that support professional systems engineers and their life-long learning efforts.

ENGINEERING MANAGEMENT

Session Chair: Mr. Geoff Draper

This track addresses the challenges and issues facing managers integrating systems in a rapidly changing environment. This requires expertise in integration management, agile systems engineering in rapid acquisitions, and use of enterprise architectures.

ENTERPRISE HEALTH MANAGEMENT

Session Chairs: Mr. Howard Savage & Mr. Chris Reisig

Enterprise Health Management is an enabling technology essential to achieving superior systems availability. A key component of health management is a disciplined approach to specialty engineering skills such as reliability, maintainability, and testability. This track will present topics addressing these specialty engineering disciplines.

CONFERENCE TRACK DESCRIPTIONS CONTINUED

ENGINEERING RESILIENT SYSTEMS

Session Chairs: Dr. Robert Neches & Ms. Lois Hollan

Resilience means different things in different disciplines. From a systems engineering perspective, we define resilience as the ability of a system to adapt affordably and perform effectively across a wide range of operational contexts, where context is defined by mission, environment, threat, and force disposition. This track addresses the current the context for resilient engineering, how to apply modeling and cross domain coupling, collaboration and decision making, management of risk, and future opportunities for engineering resilient systems.

EARLY SYSTEMS ENGINEERING/SYSTEM OF SYSTEMS

Session Chairs: Mr. John Lohse & Dr. Judith Dahmann

This track explores the application of Wave Model theory, the unintended consequences of new acquisitions and mission architectures needed to address development planning across system of systems.

ESOH

Session Chairs: Mr. Bob Smith

This track provides OSD's perspective on integrating Environment, Safety, and Occupational Health (ESOH) considerations into Acquisition Systems Engineering using the System Safety process as described in the new MIL-STD-882E. Included in the track are eight presentations on the new MIL-STD-882E, several case studies, and the Service perspectives on the challenges facing Joint Programs with compliance with the National Environmental Policy Act (NEPA) requirements of each of the Services.

HUMAN SYSTEMS INTEGRATION

Session Chairs: Mrs. Elaine Thorpe & Dr. Matthew Risser

The HSI track addresses current challenges and methodologies to efficiently integrate the human in complex weapon systems.

MODELING & SIMULATION/ARCHITECTURE

Session Chairs: Ms. Barbara Sheeley & Mr. Jeff Bergenthal

These papers address the modeling of system architectures using model based system engineering best practices.

MODELING & SIMULATION

Session Chairs: Dr. James Coolahan & Mr. Jeff Bergenthal

The Modeling and Simulation (M&S) track focuses on the use of M&S in systems engineering. It includes sessions on use of M&S in the DoD systems acquisition process, Model-Based Systems Engineering, the modeling of cost and capability, use of M&S in decision-making, and selected M&S applications in systems engineering.

NET-CENTRIC OPERATIONS/INTEROPERABILITY

Session Chair: Mr. Jack Zavin

Net-Centric Operations is composed of the capabilities for full human and technical interworking that allows all DoD users and mission partners synergistically operate together enabled through the sharing of the information/data/knowledge they need, when they need it, in a form they can understand and act on with confidence, while protecting it from those who should not have it. Net-Centric Operations/Interoperability includes capabilities such as Service Oriented Architecture, Data Center, Cloud Computing, information transport [e.g. internet, web, radios, data links], as well as both hardware and software [aka Information and Communicative Technology] together with humans as part of the System of Systems Systems Engineering. Given this, NCO/Interoperability presentations are also found in a Joint NCO/SoS session, Joint SoS/T&E session, Software Track, ERS Track and HSI Track.

PROGRAM MANAGEMENT

Session Chair: Mr. Gene Rosenbluth

Planning papers address the importance of unifying engineering and management disciplines into a single optimized decision support capability, using RFP language to get what you need, a method for effective requirements prioritization, and balancing priorities and incentives. A measurements and analysis session includes papers addressing program performance measurement and a decision analysis. The final session provides papers on program management decisions and cost implications.

SOFTWARE

Session Chair: Mr. Paul Croll

Papers highlight methods and real world experience in software architecture and development with implications for agile processes, software safety, and cloud computing. They discuss methods and real world experience in software architecture and development, with implications for agile processes, software safety, and cloud computing.

STATISTICAL TEST OPTIMIZATION

Session Chairs: Dr. Neal Mackertich & Dr. Beth Wilson

The Statistical Test Optimization track focuses on effective use of scientific test and analysis techniques for test design and optimization. The track will begin with real examples of test optimization leading to a synthesis panel where we will capture an understanding of best practices in this area and build an integrated route forward for increasing implementation maturity.

SYSTEM SECURITY ENGINEERING

Session Chair: Mr. Paul Croll

Papers highlight current policy, strategies, and methods for comprehensive program protection and system security engineering.

SYSTEM OF SYSTEMS/ARCHITECTURE

Session Chair: Ms. Barbara Sheeley

This session addresses the challenges of developing and maintaining architectures in a System of Systems Environment.

SYSTEM OF SYSTEMS/NET-CENTRIC

Session Chairs: Dr. Judith Dahmann & Mr. Jack Zavin

This session addresses the interoperability challenges in a System of Systems environment.

SYSTEM OF SYSTEMS/TEST & EVALUATION

Session Chairs: Dr. Beth Wilson & Mr. John Palmer

The joint Test and Evaluation for System of Systems track is one of the collaboration efforts in the NDIA Systems Engineering Division. The focus is to investigate best practices that can be applied to testing our SoS capabilities.

SYSTEMS ENGINEERING EFFECTIVENESS

Session Chairs: Mr. Al Brown & Ms. Dona Lee

The Systems Engineering (SE) Effectiveness Track starts off with the results of an industry-wide survey whose results establish a strong business case for SE. This is followed by an assessment of the effectiveness of systems engineering throughout the life cycle. The second and third sessions on Wednesday will review some of the latest DoD guidance and DoD and Department of Commerce frameworks for systems development and acquisition improvement, respectively. Wednesday afternoon will primarily deal with systems engineering practices and data needed by decision makers for good program performance. On Thursday morning the track will explore assessment and analysis of risks and the afternoon session will wrap up with some specific approaches to avoiding defects early in the development cycle by managing requirements, using prototyping and understanding the difference between Gorillas and Guerillas.

SYSTEM OF SYSTEMS

Session Chairs: Dr. Judith Dahmann & Mr. John Palmer

This track provides a broad perspective on the DoD initiative to formally review the SoS issues and risks for Major Defense acquisition programs. It addresses new System of Systems policy issues and implementation and development and execution behavior modeling.

TECHNOLOGY MATURITY

Session Chairs: Mr. William Nolte & Dr. James Malas

The Technology Maturity Track reviews current state of the art of technology readiness and technology maturity assessment. It provides a cross-agency government and industry forum for describing developing standard technology maturity metrics, processes, lessons learned, and best practices from cross-service, international, industry, and academic perspectives. The annual GAO report of DoD Technology Assessment results kicks off the track.

TEST & EVALUATION

Session Chairs: Dr. Beth Wilson & Mr. Steve Scukanec

The Test and Evaluation track address the entire continuum of test and evaluation from early planning to operational testing. The overall track includes a joint focus on distributed model based test and evaluation strategies, a joint focus on best practices for test and evaluation applied to Systems of Systems capabilities, and a focus on the effective use of scientific test and analysis techniques to implement statistical test optimization.

TEST & EVALUATION/MODELING & SIMULATION

Session Chairs: Ms. Louisa Guise & Dr. James Coolahan

The joint Test and Evaluation for Modeling and Simulation track is one of the collaboration efforts in the NDIA Systems Engineering Division. The focus is to investigate modeling best practices that can leverage to effectively test systems.

A SPECIAL THANK YOU TO OUR 2012 CONFERENCE PLANNING COMMITTEE AND SESSION CHAIRS!

WEDNESDAY, OCTOBER 24, 2012

	SESSION CHAIRS	8:00 AM - 8:35 AM	8:35 AM - 9:10 AM	9:10 AM - 9:45 AM
TRACK 1 **BAYVIEW 1** SYSTEMS ENGINEERING EFFECTIVENESS	Mr. Al Brown, *The Boeing Company*; Ms. Dona Lee, *American Systems*	**14695** - "Building a Business Case For Systems Engineering - The Results of the 2012 SE Effectiveness Study" Mr. Joseph Elm, *Software Engineering Institute*	**14725** - "Enablers and Impediments to Systems Engineering Implementation" Mr. Pete Nolte, *ODASD(SE)*	**14746** - "Defense Acquisition Guidebook Systems Engineering Chapter Update" Mrs. Aileen Sedmak, *ODASD(SE)*
TRACK 2 **BAYVIEW 2** NET-CENTRIC	Mr. Jack Zavin, *USD(AT&L)/ DASD(C3&Cyber)*	**14685** - "Kick Off for NCO/Interoperability Track" Mr. Jack Zavin, *USD(AT&L)/DASD(C3&Cyber)*		**14665** - "Using Data Integration and Data Governance to Extend the Life of USMC Logistics Applications During Migration to GCSS-MC" Ms. Mary Hiles, *Concurrent Technologies Corporation*
TRACK 3 **BAYVIEW 3** ENGINEERING RESILIENT SYSTEMS	Dr. Robert Neches, *ODASD(SE)*; Ms. Lois Hollan, *Potomac Institute for Policy Studies*	**14768** - "Driving Engineering Productivity" Mr. Stephen Welby, *DoD*	**14697** - "How to Use Engineering Resilient Systems Technologies to Improve Defense Acquisition Processes" Dr. Edward Kraft, *USAF*	**14935** - "Human Systems S&T: Benchmark Benefits to System Designers Considering Complex Trade Spaces" Dr. John Tangney, *Office of Naval Research*
TRACK 4 **MISSION 1** EARLY SYSTEMS ENGINEERING	Mr. John Lohse, *Raytheon*; Mr. Jeff Loren, *DRC HPTG*	**14632** - "NDIA Development Planning Working Group Workshop: Improving the Integration of Government and Industry S&T/IR&D to Support Development Planning" Mr. John Lohse, *Raytheon*	**14747** - "Characterization of Materiel Solution Analysis Phase Engineering and Technical Analysis" Mrs. Aileen Sedmak, *ODASD(SE)*	**14587** - "MORS Affordability Analysis Workshop: MORS Developmental Planning Working Group Results" Mr. Kirk Michaelson, *Lockheed Martin*
TRACK 5 **MISSION 2** SYSTEM SECURITY ENGINEERING	Mr. Paul Croll, *CSC*	**14761** - "System Security Engineering and Program Protection for the Materiel Solution Analysis (MSA) Phase" Ms. Melinda Reed, *DoD*	**14763** - "Strategies for Program Protection – Identifying Risks and Setting Requirements" Mr. Paul Croll, *CSC*	**14908** - "A Methodology for Agile Development of System Security Architectures in Complex Systems" Ms. Ronda Henning, *Harris Corporation*

	SESSION CHAIRS	8:00 AM - 8:35 AM	8:35 AM - 9:10 AM	9:10 AM - 9:45 AM
TRACK 6 MISSION 3 TEST & EVALUATION/ MODELING & SIMULATION	Ms. Louisa Guise; *Raytheon* Dr. James Coolahan, *Johns Hopkins University/Applied Physics Laboratory*	**14571** - "Advanced Systems Engineering Methodologies and Tools for Gateway Selection and Configuration" Mr. Robert Lutz, *Johns Hopkins University/Applied Physics Laboratory*	**14614** - "Reference Architectures for Model Based Distributed Integration and Test" Dr. Beth Wilson, *Raytheon*	**14872** - "Model-Based Systems Engineering as an Enabler to Effective Test and Evaluation" CANCELLED Ms. Kate Konczal, *USAF - Picatinny Arsenal*
TRACK 7 PALM 1 TECHNOLOGY MATURITY	Mr. William Nolte, *Air Force Research Laboratory*; Dr. James Malas, *Air Force Research Laboratory*	**14904** - "GAO's Assessment of DoD Weapon Acquisition Outcomes and the Impact of Recent Reforms" Mr. Ronald Schwenn, *Government Accountability Office*	**14957** - "ISO Technology Readiness Level Standard Status" Mr. James Bilbro, *JB Consulting International*	**14876** - "Air Force Life Cycle Management Approach to Technology Readiness Assessment" Ms. Janet Jackson, *USAF*
TRACK 8 PALM 2 EDUCATION & TRAINING	Dr. Don Gelosh, *Worcester Polytechnic Institute*; Ms. Nicole Hutchison, *Systems Engineering Research Center*	**14781** Panel - "Systems Engineering Degrees and Certificates: What is the Right Mix for Industry and Government?" **Moderator**: Dr. Art Pyster, *Stevens Institute of Technology* **Panelists:** ▸ Mr. Nic Torelli, *DASD(SE)* ▸ Dr. Azad Madni, *University of Southern California* ▸ Mr. Leroy Hanneman, *Boeing* ▸ Mr. Fred Highland, *Lockheed Martin*		
TRACK 9 MARINER POINT ESOH - OSD PERSPECTIVE	Mr. Bob Smith, *Booz Allen Hamilton*	**14797** - "Acquisition ESOH: An OSD Perspective" Mr. David Asiello, *ODUSD(I&E)*	**14756** - "Driving Affordability with Sustainability Analysis" Mr. Yann Risz, *Enviance*	**14788** - "MIL-STD-882E: Overview of Development and Objectives of Rewrite" Mr. Jefferson Walker, *Booz Allen Hamilton*
TRACK 10 CROWN POINT HUMAN SYSTEMS INFORMATION	Mrs. Elaine Thorpe, *The Boeing Company*; Dr. Matthew Risser, *Pacific Science & Engineering Group*	**14712** - "AF System Modification Process" Mr. Roderick Thornton, *Booz Allen Hamilton*	**14738** - "Applying Human Systems Integration in Air Force Acquisition: From Requirements Development through Disposal" Ms. Sarah Orr, *Booz Allen Hamilton*	**14745** - "Complex Systems Engineering Applications for Future Battle Management and Command & Control" Mrs. Bonnie Young, *Naval Postgraduate School*
9:45 AM - 10:15 AM		**MORNING BREAK - Regatta Pavilion**		

	SESSION CHAIRS	10:15 AM - 10:50 AM	10:50 AM - 11:25 AM	11:25 AM - 12:00 PM
TRACK 1 **BAYVIEW 1** SYSTEMS ENGINEERING EFFECTIVENESS	Mr. Al Brown, *The Boeing Company*; Ms. Dona Lee, *American Systems*	**14801** - "Sustainability in Acquisition" Mr. Paul Yaroschak, *ODUSD(I&E)*	**14813** - "Naval Undersea Warfare Center (NUWC) Division Newport Annual SE Assessment Process" Ms. Jacqueline Collins, *Naval Undersea Warfare Center*	**14894** - "A Framework for Expedited Systems Development" Ms. Debra Facktor Lepore, *Stevens Institute of Technology*
TRACK 2 **BAYVIEW 2** NET-CENTRIC	Mr. Jack Zavin, *USD(AT&L)/ DASD (C3&Cyber)*	**14836** - "Observations of Net-Centric Interoperability Anomalies in Unmanned Aircraft Systems (UASs)" Mr. Victor Taibi, *DISA/JITC (TASC Inc.)*	**14852** - "Coordination of C4ISR Systems Engineering Efforts over an Enterprise" CANCELLED Mr. Michael Shaw, *CERDEC, S&TCD, RDER-STN-AE*	**14669** - "Frameworks for Assessing IT Systems Engineering Acquisition Issues and Proposed Approaches in Support of Public Law 111" Dr. Kenneth Nidiffer, *Software Engineering Institute*
TRACK 3 **BAYVIEW 3** ENGINEERING RESILIENT SYSTEMS	Dr. Robert Neches, *ODASD(SE)*; Ms. Lois Hollan, *Potomac Institute for Policy Studies*	**14902** - "Hidden Costs of Productibility and the Potential ROI of Developing Advanced Manufacturing M&S Capabilities" Dr. Al Sanders, *Honeywell Aerospace*	**14799** - "Engineering Resilient Systems Through the Use of Kestrel, a High Fidelity Aircraft Simulation Tool and Compact Efficient Reduced Order Models of the Aircraft Static and Dynamic Loads" Dr. Scott Morton, *DoD HPCMP*	**14842** - "Physics-Based Modeling in Virtual Environments to Improve Combat Operations" Dr. Robert Wallace, *U.S. Army Engineer Research and Development Center*
TRACK 4 **MISSION 1** EARLY SYSTEMS ENGINEERING	Mr. John Lohse, *Raytheon*; Mr. Jeff Loren, *DRC HPTG*	**14724** - "Insights on the Implementation of Development Planning" Mr. Pete Nolte, *ODASD(SE)*	**14574** - "The Amphibious Combat Vehicle: A Real-World Example of Early Phase Systems Engineering for Operational Requirements Generation and Cost Estimation" Mr. Edward DeVilliers, *TASC Inc.*	**14748** - "Contingency Basing Development Planning" CANCELLED Ms. Christine Brennan, *PEO CS&CSS*
TRACK 5 **MISSION 2** M&S MODEL BASED SYSTEMS ENGINEERING	Dr. James Coolahan, *Johns Hopkins University/Applied Physics Lab*; Mr. Jeff Bergenthal, *Lockheed Martin*	**14774** - "The Acquisition Community Modeling and Simulation Strategy (AMSS) to Support Department of Defense Acquisition: Model-Based Systems Acquisition" Ms. Philomena Zimmerman, *DoD*	**14777** - "Modeling, Simulation, and Analysis (MS&A) Fundamentals for Acquisition" Ms. Philomena Zimmerman, *DoD*	**14920** - "Identification of Modeling and Simulation Capabilities by Acquisition Life Cycle Phase" Dr. James Coolahan, *Johns Hopkins University/Applied Physics Laboratory*

	SESSION CHAIRS	10:15 AM - 10:50 AM	10:50 AM - 11:25 AM	11:25 AM - 12:00 PM
TRACK 6 **MISSION 3** TEST & EVALUATION	Dr. Beth Wilson, *Raytheon*; Mr. Steve Scukanec, *Northrop Grumman Aerospace Sector*	**14618** - "Test; Are We Confusing the Issue?" Mr. Steve Scukanec, *Northrop Grumman*	**14615** - "Developmental Test Framework" Mr. Chris Hauser, *AVW Technologies*	**14967** - "Systems Engineering to T&E – Connecting Tests to Requirements with Design of Experiments – the MC-130W Dragon Spear" Mr. Gregory Hutto, *46 Test Wing*
TRACK 7 **PALM 1** TECHNOLOGY MATURITY	Mr. William Nolte, *Air Force Research Laboratory;* Dr. James Malas, *Air Force Research Laboratory*	**14903** - "GAO Efforts to Develop a Government-wide Guide on Technology Readiness Assessments" Mr. Ronald Schwenn, *Government Accountability Office*	**NEW 14611** - "Streamlined Systems Engineering for the S&T Business Case" Mr. Thomas Archer, *SynGenics Corporation*	**NEW** "Agility, Collaboration, Innovation: Foundations for Attacking Wicked Problems" Dr. Richard Turner, *Stevens Institute*
TRACK 8 **PALM 2** EDUCATION & TRAINING	Dr. Don Gelosh, *Worcester Polytechnic Institute*; Ms. Nicole Hutchison, *Systems Engineering Research Center*	**14597** - "Education in Complex Systems for Systems Engineers" Mr. Gregory Miller, *Naval Postgraduate School*	**14934** - "Innovative Strategies for Effective System Engineering Training" Dr. Rick Hefner, *Northrop Grumman Corporation*	**14883** - "Systems Engineering Practitioner Development via a Multi-Semester Design Project" Dr. Cihan Dagli, *Missouri University of Science and Technology*
TRACK 9 **MARINER POINT** ESOH MIL-STD-882E	Mr. Bob Smith, *Booz Allen Hamilton*	**14789** - "MIL-STD-882E: Eight Element Process Changes – Highlight the New Details and Requirements" Ms. Karen Gill, *Booz Allen Hamilton*	**14794** - "MIL-STD-882E: Software System Safety Process in 882E" Mr. Bob Smith, *Booz Allen Hamilton*	**14790** - "MIL-STD-882E: Mandatory Definitions" Ms. Lucy Rodriguez, *Booz Allen Hamilton*
TRACK 10 **CROWN POINT** HUMAN SYSTEMS INFORMATION	Mrs. Elaine Thorpe, *The Boeing Company*; Dr. Matthew Risser, *Pacific Science & Engineering Group*	**14891** - "An Evolution of Usability Analysis: The System of Systems Usability (SoS-U) Framework" Dr. Matthew Risser, *Pacific Science & Engineering Group*	**NEW** "The Human Role in Resilience Engineering: A Practical View" Ms. Elaine Thorpe, *The Boeing Company*	**14917** - "Malleable Function Allocation: The Human Role in Resilience Engineering" Dr. Matthew Risser, *Pacific Science & Engineering Group*
12:00 PM - 1:30 PM		**LUNCHEON - Regatta Pavilion**		

	SESSION CHAIRS	1:30 PM - 2:05 PM	2:05 PM - 2:40 PM	2:40 PM - 3:15 PM
TRACK 1 **BAYVIEW 1** SYSTEMS ENGINEERING EFFECTIVENESS	Mr. Al Brown, *The Boeing Company*; Ms. Dona Lee, *American Systems*	**14512** - "New Scalable Acquisition Framework in the Department of Commerce" Ms. Sharon Vannucci, *Department of Commerce*	**14779** - "A Status Report – Progress and Plans for Improving DoD Acquisition by Restoring the Use of SE Standard Practices" Col Christopher Ptachik, USAF (Ret), *Alion Science & Technology (SAF/AQXA Contractor)*	**14573** - "Characterizing the Accuracy of DoD Operating & Support Cost Estimates" Maj Erin Ryan, *USAF*
TRACK 2 **BAYVIEW 2** NET-CENTRIC	Mr. Jack Zavin, *USD(AT&L)/ DASD (C3&Cyber)*	**14816** - "Cloud Computing and Systems Engineering" Dr. Steven Dam, *SPEC Innovations*	**14870** - "An Infrastructure to Enable Crowd-Sourced Design and Collaboration for Complex Defense Applications" Dr. Jack Zentner, *Georgia Tech Research Institute*	**14625** - "Peer-to-Peer Voice-over-Internet Protocol Communications in Mobile Ad Hoc Networks" Dr. Radhika Roy, *CERDEC, USA*
TRACK 3 **BAYVIEW 3** ENGINEERING RESILIENT SYSTEMS	Dr. Robert Neches, *ODASD(SE)*; Ms. Lois Hollan, *Potomac Institute for Policy Studies*	**14855** - "Systems Tradespace Analysis: Assessment of Current Capabilities and Future Directions" Mr. Elias Rigas, *U.S. Army Research Laboratory*	**14776** - "Implementation of Design Space Exploration and Optimization for Early Stage Ship Design" Mr. Adrian Mackenna, *NAVSEA*	**14752** - "Early Stage Systems Engineering with Uncertain Requirements" Mr. Michael Bosworth, *Naval Sea Systems Command (SEA 05T)*
TRACK 4 **MISSION 1** EARLY SYSTEMS ENGINEERING	Mr. John Lohse, *Raytheon*; Mr. Jeff Loren, *DRC HPTG*	**14944** - "Army Systems Engineering Support to Materiel Development Decision (MDD) Development Planning (DP)" Mr. Leo Smith, *USA*	**14812** - "Whips and Chains, "Bring Me a Rock," and "DRIP": A Framework for Understanding Decision Analysis and Decision Support Information" Mr. Jeff Loren, *DRC HPTG*	**15241** - "Using the Streamlined Systems Engineering Method for Science and Technology (S&T) to Identify Programs with High Potential to Meet Air Force Needs" Dr. Gerry Hasen, *UTC*
TRACK 5 **MISSION 2** M&S MODEL BASED SYSTEMS ENGINEERING	Dr. James Coolahan, *Johns Hopkins University/Applied Physics Lab*; Mr. Jeff Bergenthal, *Lockheed Martin*	**14888** - "Use of Requirements in Model-Based Systems Engineering for a Legacy Design" Mr. Philip Simpkins, *Kihomac, Inc.*	**14895** - "Using MBSE to Support CMMI's Requirements Development and Technical Solutions Process Areas" Mr. Frank Salvatore, *Dynamics Research Corporation*	**14814** - "Embedding Command and Control, Information Assurance, and Other Decision Points in Model-Based Systems Engineering (MBSE) Analyses" Dr. Steven Dam, *SPEC Innovations*

	SESSION CHAIRS	1:30 PM - 2:05 PM	2:05 PM - 2:40 PM	2:40 PM - 3:15 PM
TRACK 6 MISSION 3 STATISTICAL TEST OPTIMIZATION	Dr. Neal Mackertich, *Raytheon*; Dr. Beth Wilson, *Raytheon*	**14896** - "A Priori Factor Validation and Use Case Analysis for Effective DoE Application" Mr. Clint Cole, *Raytheon Missile Systems*	**14775** - "Evaluating and Improving Operational Test Effectiveness Using Statistical Test Optimization" Mr. Kedar Phadke, *Phadke Associates*	**14805** - "A Preliminary Decision Support Framework for Developmental Test and Evaluation (DT&E): A Systems Engineering Perspective" Mrs. Alethea Rucker, *USAF*
TRACK 7 PALM 1 TECHNOLOGY MATURITY	Mr. William Nolte, *Air Force Research Laboratory*; Dr. James Malas, *Air Force Research Laboratory*	**14784** - "A Data Item Description for System Feasibility Evidence" Dr. Barry Boehm, *University of Southern California*	**14619** - "Using Sensitivity Analysis in Multi Criteria Decision Making to Improve DoD Requirements Analysis" Mr. Justin Rettaliata, *George Washington University*	**14882** - "On Understanding and Contrasting Certification Review Processes for Software and Hardware Components: An Industrial Case Study" Dr. Madeline Diep, *Fraunhofer CESE*
TRACK 8 PALM 2 EDUCATION & TRAINING	Dr. Don Gelosh, *Worcester Polytechnic Institute*; Ms. Nicole Hutchison, *Systems Engineering Research Center*	**14765** - "SPAWAR Systems Engineering Training Approach" Mr. Duston Hayward, *SPAWAR Systems Center Pacific*	**14718** - "SEQual - Systems Engineering Workforce Development" Mr. Leonard Mikolajczak, *IS&GS*	**14758** - "Systems Engineering Leadership – It Starts on Day One" Dr. Don Gelosh, *Worcester Polytechnic Institute*
TRACK 9 MARINER POINT ESOH MIL-STD-882E	Mr. Bob Smith, *Booz Allen Hamilton*	**14863** - "MIL-STD-882E: Quantitative vs. Qualitative ESOH Risk Assessments Using the 882E Risk Matrix" Mr. Bob Smith, *Booz Allen Hamilton*	**14791** - "MIL-STD-882E: Risk Acceptance Requirements and Scenarios" Ms. Karen Gill, *Booz Allen Hamilton*	**14793** - "MIL-STD-882E: 882E Hazard Tracking System Requirements and Options" Mr. William Thacker, *Booz Allen Hamilton*
TRACK 10 CROWN POINT SOFTWARE DEVELOPMENT	Mr. Paul Croll, *CSC*	**14666** - "Case Study of a Program using an Agile Software Development Process" Ms. Phyllis Marbach, *The Boeing Company*	**14798** - "A Methodology for Exposing Software Safety Risk in Early Development Phases" Dr. Lucas Layman, *Fraunhofer USA*	**14972** - "Defining Requirements for Error Handling with Usage Models" Dr. William Bail, *The MITRE Corporation*
3:15 PM - 3:45 PM AFTERNOON BREAK - Regatta Pavilion				

	SESSION CHAIRS	3:45 PM - 4:20 PM	4:20 PM - 4:55 PM	4:55 PM - 5:30 PM	5:30 PM - 6:05 PM
TRACK 1 **BAYVIEW 1** SYSTEMS ENGINEERING EFFECTIVENESS	Mr. Al Brown, *The Boeing Company*; Ms. Dona Lee, *American Systems*	**14828** - "Metric Systems for Executive Overview" Mr. Jesse Crowley, *Raytheon Missile Systems*	**14866** - "Turning Data in to the Tradeoff Analyses Needed by Decision Makers" Mr. Richard Swanson, *Dynamics Research Corporation*	**14628** - "Lean Enablers for Managing Engineering Programs" Ms. Lori Zipes, *Naval Surface Warfare Center Panama City*	
TRACK 2 **BAYVIEW 2** SOS/NET CENTRIC	Dr. Judith Dahmann; *The MITRE Corporation* Mr. Jack Zavin, *USD(AT&L)/ DASD (C3&Cyber)*	**14590** - "Experimental Research and Future Approach on Evaluating Service Oriented Architecture (SOA) Challenges in a Real-Time Combat System Environment" Mr. James Moreland, *Naval Surface Warfare Center Dahlgren Division*	**14750** - "System Re-Tasking to Achieve Resilience in an SoS" Ms. Payuna Uday, *Purdue University*	**14766** - "Addressing Navy's Information Dominance Technical Authority through System of Systems Engineering and Integration" Dr. Warren Vaneman, *Naval Postgraduate School*	**NEW 15271** - "DoD Architectures and Systems Engineering Integration" Mr. Dave McDaniel, *Silver Bullet Solutions, Inc*
TRACK 3 **BAYVIEW 3** ENGINEERING RESILIENT SYSTEMS	Dr. Robert Neches, *ODASD(SE)*; Ms. Lois Hollan, *Potomac Institute for Policy Studies*	**14767** Panel - "Making ERS Possible: Current Commercial Tools and Techniques" Dr. Robert Hummel, *Potomac Institute for Policy Studies*			
TRACK 4 **MISSION 1** EARLY SYSTEMS ENGINEERING/SOS	Mr. John Lohse, *Raytheon*; Dr. Judith Dahmann, *The MITRE Corporation*	**14664** - "Application of the WAVE Model to an SoS Acquisition" CANCELLED Ms. Helene Anderson, *DASN(RDTE) CHSENG*	**14720** - "Mission Architecture: The Key to Successful Pre-Milestone A Systems Engineering" Mr. Michael Stokes, *Raytheon*		
TRACK 5 **MISSION 2** M&S MODEL BASED SYSTEMS ENGINEERING	Dr. James Coolahan, *Johns Hopkins University/Applied Physics Lab*; Mr. Jeff Bergenthal, *Lockheed Martin*	**14899** - "Concept Engineering Technologies to Advance Model-Based Systems Engineering" Dr. Robert Cloutier, *Stevens Institute of Technology, School of Systems*	**14841** - "Integrated Modeling and Analysis to Support MBSE" Dr. Peter Menegay, *Phoenix Integration*	**14873** - "Template for Establishing a Documentation Standard from a SysML Model" Mr. Tim Tritsch, *HPTG/DRC*	**14906** - "Demystifying the Worlds of M&S and MBSE; Illustrating a Practical Flow through the Worlds – Leveraging the Power of Both" Mr. Bradford Newman, *Lockheed Martin*

	SESSION CHAIRS	3:45 PM - 4:20 PM	4:20 PM - 4:55 PM	4:55 PM - 5:30 PM	5:30 PM - 6:05 PM
TRACK 6 MISSION 3 STATISTICAL TEST OPTIMIZATION	Dr. Neal Mackertich, *Raytheon*; Dr. Beth Wilson, *Raytheon*	**14668** - "Statistically-Based Test Optimization" Dr. Neal Mackertich, *Raytheon*	**14925** Panel - "Scientific Methods for Test Optimization Case Study" Dr. Beth Wilson, *Raytheon*		
TRACK 7 PALM 1 TECHNOLOGY MATURITY	Mr. William Nolte, *Air Force Research Laboratory*; Dr. James Malas, *Air Force Research Laboratory*	**14832** - "Unified System "ility" Definition Framework" Mr. Andrew Long, *Kinsey Technical Services, Inc.*	**14653** - "Best Practice Implementation of Integrated Metric Environment" Mr. David Corbeil, *Northrop Grumman*	**14880** - "Applying Architectures to Modernization, Sustainment and Investment Planning" Mr. Richard Sorensen, *KIHOMAC*	**14612** - "Sustainment and Upgrade of Legacy Systems: How to Address Scope and Cost Risk for Obsolescence Upgrades" Mrs. Milly Lierman, *Raytheon Missile Systems*
TRACK 8 PALM 2 EDUCATION & TRAINING	Dr. Don Gelosh, *Worcester Polytechnic Institute*; Ms. Nicole Hutchison, *Systems Engineering Research Center*	**14959** - "Army SE Workforce Development, Education & Training" Mr. Smit Patel, *U.S. Army RDECOM-ARDEC*	**14585** - "Technology Support for Distributed Learning at NPS: A Story of System Evolution and SE Workforce Education" Mr. Gregory Miller, *Naval Postgraduate School*	**14709** - "Science, Technology, Engineering and Mathematics (STEM) Event at Quantico School" Mr. Michael Ferraro, *Marine Corps Systems Command*	**NEW** - "The Qualities of Excellent Systems Engineers" Mr. Gerard Fisher, *The Aerospace Corporation*
TRACK 9 MARINER POINT ESOH CASE STUDIES	Mr. Bob Smith, *Booz Allen Hamilton*	**14792** - "MIL-STD-882E: Putting 882E on Contract – Employing the Task Descriptions When Necessary" Mr. Jefferson Walker, *Booz Allen Hamilton*	**14818** - "Architecting for Disaster Preparedness" Dr. Steven Dam, *SPEC Innovations*	**14541** - "Test and Evaluation of Black Swan Risks in Early Systems Development for Maximum Effectiveness: A Case Study of Lightning Protection of Insensitive High Explosives" Mr. Gary Sanders, *Sandia National Laboratories*	
TRACK 10 CROWN POINT SOFTWARE ARCHITECTURE & INFRASTRUCTURE	Mr. Paul Croll, *CSC*	**14687** - "Software Engineering: Architecture-Driven Software Development" Mr. Richard Schmidt, *Systems Analysis, Inc.*	**14809** - "Architecting the Cloud: Enterprise Architecture Patterns for Cloud Computing" Ms. Claudia Rose, *BBII*		

THURSDAY, OCTOBER 25, 2012

	SESSION CHAIRS	8:00 AM - 8:35 AM	8:35 AM - 9:10 AM	9:10 AM - 9:45 AM
TRACK 1 **BAYVIEW 1** SYSTEMS ENGINEERING EFFECTIVENESS	Mr. Al Brown, *The Boeing Company*; Ms. Dona Lee, *American Systems*	**14786** - "Application of Integration Readiness Level (IRL) in Assessing Technology/Subsystem Integration Risk" Mr. Jerome Tzau, *TARDEC* CANCELLED	**14938** - "System Development Performance Measurement: Validation of the Effectiveness of an Initial Indicator Set and Addressing Additional Information Needs" Mr. Peter McLoone, *Lockheed Martin IS&GS*	**14807** - "Project Recon – Full Lifecycle Integrated Risk Management" Ms. Paula Gillis, *TARDEC* CANCELLED
TRACK 2 **BAYVIEW 2** SOS POLICIES, ISSUES, & IMPLEMENTATION	Dr. Judith Dahmann, *The MITRE Corporation*; Mr. John Palmer, *The Boeing Company*	**14722** - "System of Systems (SoS) Systems Engineering in Acquisition Program Planning" Ms. Kristen Baldwin, *ODASD(SE)*	**14770** - "SoS Pain Points - INCOSE SoS Working Group Survey" Dr. Judith Dahmann, *The MITRE Corporation*	**14856** - "System of Systems Operational Availability Modeling" Mr. Dennis Anderson, *Sandia National Laboratories*
TRACK 3 **BAYVIEW 3** ENGINEERING RESILIENT SYSTEMS	Dr. Robert Neches, *ODASD(SE)*; Ms. Lois Hollan, *Potomac Institute for Policy Studies*	**14833** - "Design of Resilient U.S. Space Architectures" Mr. Andrew Long, *Kinsey Technical Services, Inc.*	**14652** - "Case Study in the Development and Implementation of Platform-based and Model-based Engineering with HPC to Convert From Prototype-based to Physics-based, Computational Product Development" Mr. Loren Miller, *DoD HPCMP CREATE Program*	**14921** - "Platform Evolution - Extending System Lifecycles Under Uncertainty" Mr. Troy Peterson, *Booz Allen Hamilton*
TRACK 4 **MISSION 1** EARLY SYSTEMS ENGINEERING	Mr. John Lohse, *Raytheon*; Mr. Jeff Loren, *DRC HPTG*	**14782** - "Integrating Requirements to Analyze Capability Gaps and Redundancies across the Army's System of Systems (SoS)" Mr. Edward Dooley, *U.S. Army ARDEC, Picatinny Arsenal* CANCELLED		**14691** - "Systems Engineering Best Practices in Science and Technology, Low Altitude Small Unmanned Aircraft System (SUAS) Military Utility Study" Ms. Carol Ventresca, *SynGenics Corporation*
TRACK 5 **MISSION 2** M&S COST & CAPABILITY	Dr. James Coolahan, *Johns Hopkins University/Applied Physics Lab*; Mr. Jeff Bergenthal, *Lockheed Martin*	**14877** - "FACT: Enabling Systems Engineering as a Web Service" Mr. Daniel Browne, *Georgia Tech Research Institute*	**14834** - "Systems Dynamics Simulation of the Impacts of Human Resource Policy Decisions on Total Ownership Cost" Mr. Behzad Esmaeilian, *University of Central Florida* CANCELLED	**14929** - "Capability-Driven Systems Engineering Process with SoS and MS&A Considerations" Mr. Mitchel Miller, *AFMC/EN*

	SESSION CHAIRS	8:00 AM - 8:35 AM	8:35 AM - 9:10 AM	9:10 AM - 9:45 AM
TRACK 6 **MISSION 3** PROGRAM MANAGEMENT - PLANNING	Mr. Gene Rosenbluth, *Northrop Grumman Missile Systems*	**14606** - "Agile Surveillance Points" Mr. Richard Carlson, *The Boeing Company*	**14890** - "A 2-step Process for Requirements Prioritization and Selection for Large-Scale Engineering Defense Projects" Mr. Jason McZara, *George Washington University*	**14892** - "The Evolution of a Science Project: System Dynamics Modeling of Recurring Software-Intensive Acquisition Behaviors" Mr. William Novak, *Software Engineering Institute*
TRACK 7 **PALM 1** AFFORDABILITY	Mr. Frank Serna, *The Charles Stark Draper Laboratory, Inc.*	**14588** - "MORS Affordability Analysis Workshop: Overall Workshop Results" Mr. Kirk Michaelson, *Lockheed Martin*	**14785** - "A Value-Based Orthogonal Framework for Improving Life Cycle Affordability" Dr. Barry Boehm, *University of Southern California*	**14939** - "Affordability Measurement: Exploring Qualitative Approaches" Mr. Peter McLoone, *Lockheed Martin IS&GS*
TRACK 8 **PALM 2** E&T ACADEMIC ADVISORY BOARDS	Dr. Don Gelosh, *Worcester Polytechnic Institute*; Ms. Nicole Hutchison, *Systems Engineering Research Center*	**14827** Panel - "Academic Advisory Boards: Expectations and Opportunities" **Moderator**: Dr. David Olwell, *Naval Postgraduate School* **Panelists:** ▸ Dr. Cihan Dagli, *Missouri S&T* ▸ Mr. Garry Roedler, *Lockheed Martin* ▸ COL Donna Korycinski, USA, *United States Military Academy*		
TRACK 9 **MARINER POINT** ESOH JOINT NEPA	Mr. Bob Smith, *Booz Allen Hamilton*	**14840** - "NEPA and Systems Engineering: Managing the Environmental Risk" Mr. George Evans, *Prospective Technology, Inc.*	**14843** - "NEPA Compliance Challenges for Joint Acquisition Programs: U.S. Air Force Perspective" Mr. Samuel Brown, *Alion Science and Technology*	**14844** - "New Concept for PESHE and NEPA/EO 12114 Compliance Schedule" Ms. Lucy Rodriguez, *Booz Allen Hamilton*
TRACK 10 **CROWN POINT** SOS/ ARCHITECTURE	Ms. Barbara Sheeley, *The Boeing Company*	**14808** - "The Evolution of Emergent Architectures" Ms. Claudia Rose, *BBII*	**14690** - "The Challenges of Implementing Open Systems Architecture" Mr. William Decker, *Defense Acquisition University*	**14835** - "A Portfolio Approach to System-of-Systems Acquistion and Architecture" Dr. Navindran Davendralingam, *Purdue University*
9:45 AM - 10:15 AM		**MORNING BREAK - Regatta Pavilion**		

	SESSION CHAIRS	10:15 AM - 10:50 AM	10:50 AM - 11:25 AM	11:25 AM - 12:00 PM
TRACK 1 **BAYVIEW 1** SYSTEMS ENGINEERING EFFECTIVENESS	Mr. Al Brown, *The Boeing Company*; Ms. Dona Lee, *American Systems*	**14795** - "Tailoring of Failure Mode and Effects Analysis (FMEA) To DoD Systems and Programs as an Effective Risk Identification and Prioritization Tool" CANCELLED Mr. Kadry Rizk, *U.S. Army - TARDEC*	**14829** - "Systematic Approach for Product Quality Escape Elimination and Defect Reduction" Mr. Martin Woznica, *Raytheon Missile Systems*	**14803** - "A Standardized Approach for Evaluating Requirements to Eliminate Defects Early" CANCELLED Mr. Douglas Cohen, *U.S. Army ARDEC*
TRACK 2 **BAYVIEW 2** SOS DEVELOPMENT & EXECUTION	Dr. Judith Dahmann, *The MITRE Corporation*; Mr. John Palmer, *The Boeing Company*	**14867** - "Modeling an Acquisition Decision-Making Process for the FAA NextGen Systems of Systems" Dr. Mark Blackburn, *Stevens Institute of Technology*	**14929** - "Capability-Driven Systems Engineering Process with SoS and MS&A Considerations" Mr. Mitchel Miller, *AFMC/EN*	**14772** - "U.S. Army SoS Update" CANCELLED Mr. Phillip Minor, *Office of Chief Systems Engineer, ASA(ALT)*
TRACK 3 **BAYVIEW 3** ENGINEERING RESILIENT SYSTEMS: OPPORTUNITIES FOR THE FUTURE	Dr. Robert Neches, *ODASD(SE)*; Ms. Lois Hollan, *Potomac Institute for Policy Studies*	**14848** - "Model-Based Engineering: Opportunities, Risks, and Best Practices" Dr. Marc Halpern, *Gartner*	**14773** - "Engineered Resilient Systems (ERS): Insights and Achievements within the ERS Secretary of Defense Science and Technology (S&T) Priority" Dr. Robert Neches, *ODASD (SE)*	**14937** - "Engineered Resilient Systems: The Integration of Design, Engineering and Tradespace Analysis" Dr. Jeffery Holland, *U.S. Army Engineer Research and Development Center*
TRACK 4 **MISSION 1** EARLY SYSTEMS ENGINEERING	Mr. John Lohse, *Raytheon*; Mr. Jeff Loren, *DRC HPTG*	**14616** - "Reinventing Defense Innovation Ecosystem: S&T Programs to Innovation Programs" Mr. Has Patel, *Infologic, Inc.*	**14727** - "Aircraft Design Exploration through Integrated Parametric Modeling and Dynamic Simulation" Dr. Nicholas Borer, *Draper Laboratory*	**14757** - "Maximizing Innovation with Systems Engineering" Mr. Robert Scheurer, *The Boeing Company*
TRACK 5 **MISSION 2** M&S DECISIONS	Dr. James Coolahan, *Johns Hopkins University/Applied Physics Lab*; Mr. Jeff Bergenthal, *Lockheed Martin*	**14881** - "The Role of Modeling and Simulation in the Early Phases of System Engineering" CANCELLED Dr. Jeffrey Smith, *U.S. Army Research Laboratory*	**14657** - "Integrating System Models around Decisions" CANCELLED Mr. Pradeep Mendonza, *U.S. Army - TARDEC*	**14821** - "Using System Engineering Analytics for Evaluating Squad: Foundation of the Decisive Force" CANCELLED Mrs. Jennifer Przywozny, *U.S. Army ARDEC*

	SESSION CHAIRS	10:15 AM - 10:50 AM	10:50 AM - 11:25 AM	11:25 AM - 12:00 PM
TRACK 6 **MISSION 3** PROGRAM MANAGEMENT - MEASUREMENT & ANALYSIS	Mr. Gene Rosenbluth, *Northrop Grumman Missile Systems*	**14938** - "System Development Performance Measurement: Validation of the Effectiveness of an Initial Indicator Set and Addressing Additional Information Needs" Mr. Peter McLoone, *Lockheed Martin IS&GS*		**14865** - "Development of a Scalable and Robust Multiple Objective Decision Analysis Software Tool" CANCELLED Mr. Clifford Marini, *U.S. Army ARDEC*
TRACK 7 **PALM 1** AFFORDABILITY	Mr. Frank Serna, *The Charles Stark Draper Laboratory, Inc.*		**14662** - "A Macro-Stochastic Model for Improving the Accuracy of DoD Life Cycle Cost Estimates" Maj Erin Ryan, *USAF*	**14617** - "Empirical Assessment of Technology, Design and Production Parameters on the Schedule and Cost Risk of DoD Weapon Systems" Mr. Daniel Katz, *George Washington University*
TRACK 8 **PALM 2** EDUCATION & TRAINING	Dr. Don Gelosh, *Worcester Polytechnic Institute*; Ms. Nicole Hutchison, *Systems Engineering Research Center*	**14849** - "BKCASE and the Naval Systems Engineering Competency Model" Dr. David Olwell, *Naval Postgraduate School*	**14804** - "Comparing the Guide to the Systems Engineering Body of Knowledge (SEBoK), Part 3, Systems Engineering and Management with Other Leading Industry Systems Engineering (SE) Resources" Mr. Garry Roedler, *Lockheed Martin*	**14780** - "Systems Engineering Experience Accelerator: Preliminary Results and Invitation for Open Source Development" Dr. Jon Wade, *Stevens Institute of Technology*
TRACK 9 **MARINER** **POINT** M&S/ ARCHITECTURE	Ms. Barbara Sheeley, *The Boeing Company*; Dr. Steven Dam, *SPEC Innovations*	**14928** - "Architecting in the Fourth Dimension – Modeling Time in DoDAF" Mr. Matthew Hause, *Atego*	**14871** - "Moving SAVI to the Launch Pad" Dr. Donald Ward, *Aerospace Vehicle Systems Institute*	**14764** - "System Requirements Traceability and System Verification Rigor and Planning: Lessons Learned on the Individual Semi-Automatic Airburst System (ISAAS) Program" Mr. Joel Feigum, *Alliant Techsystems*
TRACK 10 **CROWN POINT** ENTERPRISE HEALTH MANAGEMENT	Mr. Howard Savage, *SCI*; Mr. Chris Reisig, *The Boeing Company*	**14723** - "DASD(SE) Reliability and Maintainability Engineering Initiatives" Mr. Andrew Monje, *ODASD(SE)*	**14950** - "Reliability, Availability, and Maintainability (RAM)" Mr. Bhavanjot Singh, *ASA(ALT) OCSE*	**14860** - "Operational Availability Estimation, Modeling, and Analysis" Mr. Charles Carter, *Sandia National Laboratories*
12:00 PM - 1:30 PM		**LUNCHEON - Regatta Pavilion**		

	SESSION CHAIRS	1:30 PM - 2:05 PM	2:05 PM - 2:40 PM	2:40 PM - 3:15 PM	3:15 PM - 3:55 PM
TRACK 1 **BAYVIEW 1** SYSTEMS ENGINEERING EFFECTIVENESS	Mr. Al Brown, *The Boeing Company*; Ms. Dona Lee, *American Systems*	**14787** - "Harmonization of Key Systems Engineering Resources" Mr. Garry Roedler, *Lockheed Martin*	**14914** - "A Quantitative Analysis of the Benefits of Prototyping Fixed-Wing Aircraft" Dr. John Colombi, *Air Force Institute of Technology*	**14869** - "The Future of Systems Engineering-Gorilla or Guerilla?" Dr. Keith Taggart, *SPEC Innovations*	
TRACK 2 **BAYVIEW 2** SOS/T&E	Dr. Beth Wilson, *Raytheon*; Mr. John Palmer, *The Boeing Company*	**14613** - "Test and Evaluation Connections with Systems Engineering" Dr. Beth Wilson, *Raytheon*	**14771** - "SoS SE and T&E: Final Report" Dr. Judith Dahmann, *The MITRE Corporation*	**14868** - "Test-Driven Systems Engineering for Net-Centric Systems of Systems" CANCELLED Mr. Donald Greenlee, *Science Applications International Corporation*	
TRACK 3 **BAYVIEW 3** AGILE SYSTEMS ENGINEERING	Ms. Joan Nolan, *Northrop Grumman*	**14909** - "Agile Systems Engineering is an Acquisition Game-Changer" Mr. Philip Matuzic, *The Boeing Company*	**14913** - "Holistic Agile Systems Engineering: Enabling Agile Software Engineering" Mr. Michael Coughenour, *Lockheed Martin*	**14922** - "Agile-Lean Systems Engineering in Defense: Expanding the Scope of NDIA/AFEI Agile Defense Adoption Proponents Team (ADAPT)" Dr. Richard Turner, *Stevens Institute of Technology*	**14661** - "Model-Based Concept Development" Mr. Brian London, *Draper Laboratory*
TRACK 4 **MISSION 1** EARLY SYSTEMS ENGINEERING	Mr. John Lohse, *Raytheon*; Mr. Jeff Loren, *DRC HPTG*	**14854** - "Development Planning for Producibility and Maintainability Reduces Total Cost of Ownership and Increases Readiness" Mr. Chuck Buckley, *Dassault Systèmes*	**14598** - "Weapon System Design Trade Offs" Mr. F. Quentin Redman, *PRICE SYSTEMS, L.L.C.*	**14910** - "A Holistic Approach to Agile Systems Engineering - Equipping SEs to ADAPT" Mr. Jim Brake, *Lockheed Martin*	
TRACK 5 **MISSION 2** M&S APPLICATIONS	Dr. James Coolahan, *Johns Hopkins University/Applied Physics Lab*; Mr. Jeff Bergenthal, *Lockheed Martin*	**14889** - "A Comparison of Ship Self Defense Analysis Simulations" Mr. Timothy Jahren, *Raytheon*	**14951** - "Simulation and Emulation in Support of Operational Networks: "Always On" Dr. Nancy Bucher, *ASA(ALT) OCSE/PoR*	**14820** - "Heat-Induced Electrical Injury: A Full-Body Model" Dr. David Boothe, *Altus Engineering*	

	SESSION CHAIRS	1:30 PM - 2:05 PM	2:05 PM - 2:40 PM	2:40 PM - 3:15 PM	3:15 PM - 3:55 PM
TRACK 6 MISSION 3 PROGRAM MANAGEMENT - PROGRAM DECISIONS & COSTS	Mr. Gene Rosenbluth, *Northrop Grumman Missile Systems*	**14594** - "Something You Should Know About Rights in Technical Data" Mr. Russ Miller, *USA*	**14681** - "A Macro-Stochastic Model for Improving the Accuracy of DoD Life Cycle Cost Estimates" Maj Erin Ryan, *USAF*	**14943** - "A Case Study in Reference Model Usage: The RQ-2 Pioneer" Mr. Jeffrey Wallace, *Infinite Dimensions*	**14627** - "Leveraging Systems Engineering's Broader Definition to Establish Program Integration" CANCELLED Mr. Ray Flores, *SAF/AQXRR*
TRACK 7 PALM 1 AFFORDABILITY	Mr. Frank Serna, *The Charles Stark Draper Laboratory, Inc.*	**14884** - "An Experience Report on Developing a Cost Estimation Probability Model of a Large Multi-Year System" Dr. Madeline Diep, *Fraunhofer Center Maryland*	**14596** - "Using Value Engineering to Improve the Affordability of Life-Cycle Sustainment of Department of Defense Systems" Dr. Jay Mandelbaum, *Institute for Defense Analyses*	**14622** - "Acquisition Reform: Integrate Technical Performance with Earned Value Management (EVM)" Mr. Paul Solomon, *Performance-Based Earned Value*	**14837** - "Assessing and Avoiding Technical Debt" CANCELLED Dr. Jo Ann Lane, *University of Southern California*
TRACK 8 PALM 2 ENGINEERING MANAGEMENT	Mr. Geoff Draper, *Harris Corporation*	**14744** - "Integration Management in an Age of Austerity" CANCELLED Mr. Peter Haniak, *U.S. Army ASA(ALT) OCSE*	**14874** - "Pursuit and Exploitation: Agile Systems Engineering in Rapid Defense Acquisition" Dr. Richard Wittstruck, *PEO Intelligence, Electronic Warfare, and Sensors*	**14945** - "Effective System Engineering in the Enterprise Architecture" Mr. Phil Hudner, *ASA(ALT) Office of the Chief Systems Engineer Pent*	
TRACK 9 MARINER POINT ARCHITECTURE	Ms. Barbara Sheeley, *The Boeing Company*; Dr. Steven Dam, *SPEC Innovations*	**14886** - "New Opportunities for System Architecture Measurement" Mr. Paul Kohl, *Lockheed Martin*	**14830** - "Use of Architecture for Systems Integration: An NDIA SE Division Architecture Subcommittee Update" Dr. Steven Dam, *SPEC Innovations*	**14715** - "Architecting Fundamentals: Integrated Modular Solution Architectures" Mr. Raymond Jorgensen, *Rockwell Collins*	**14806** - "Functional Architecture as the Core of Model-Based Systems Engineering" Dr. Ronald Carson, *The Boeing Company*
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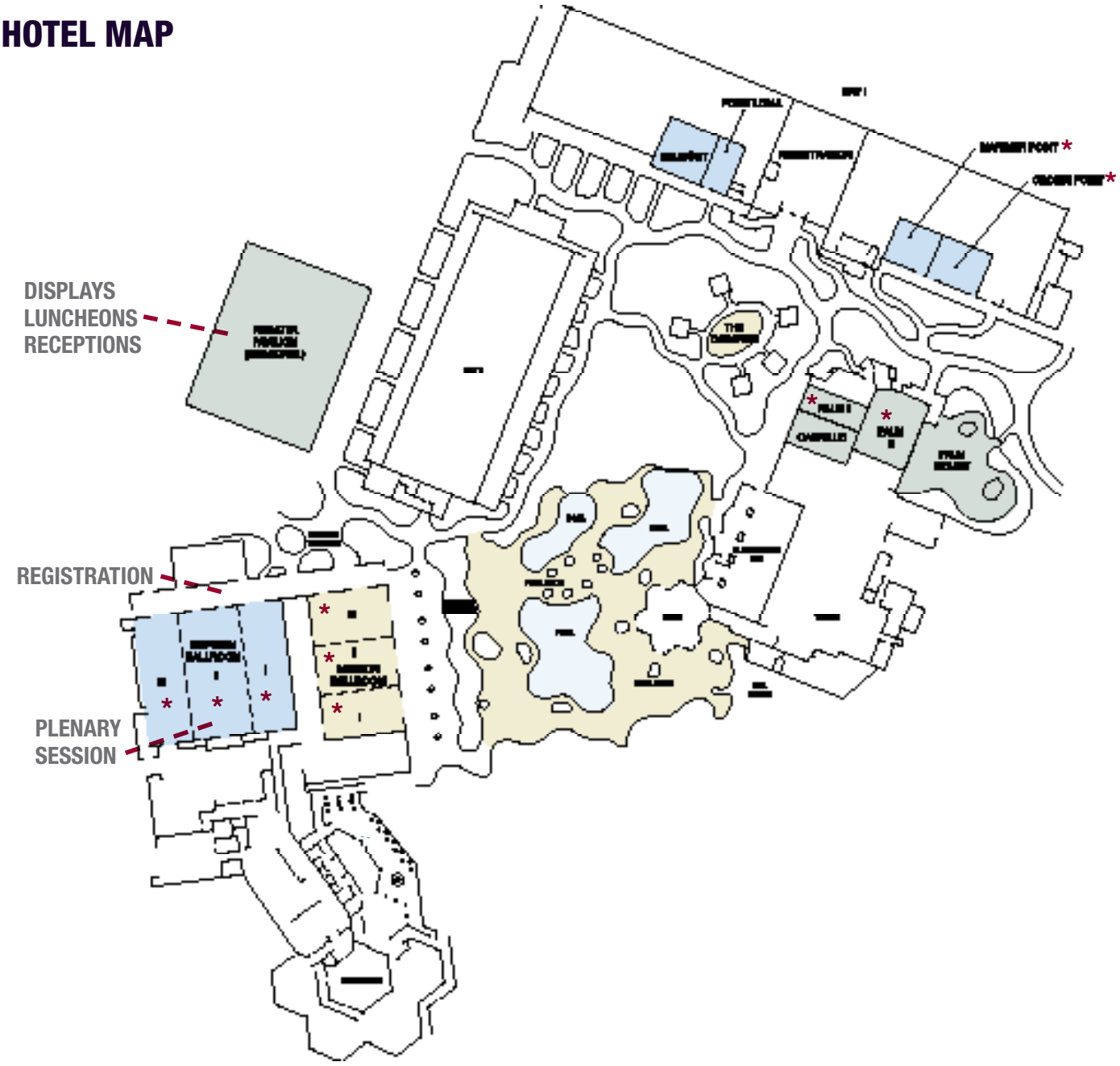

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