Welcome

to the

13th Annual

Systems Engineering Conference

Sponsored by

NDIA Systems Engineering Division

In Conjunction With

Director, Systems Engineering, Office of the Deputy Under Secretary of Defense (AT&L), Defense Research & Engineering

With Technical CoSponsorship By

Institute of Electrical & Electronics Engineers (IEEE)
Aerospace & Electronic Systems Society and
Systems Council
Systems Engineering

Why do we need systems engineering?

• SE is the all-important facilitative umbrella engineering and “glue” that enables and fosters successful programs

• The highly complex systems, and systems-of-systems of today demand a far greater expertise in systems engineering than ever
  – Within defense industry
  – Within the OSD & Services side

• We don’t seem to have the SE talent needed to satisfy the existing and future need

• Systems are so complex and the engineering challenges so great that it takes us 15 to 20 years to do what we used to in 4 to 5 years – and we can only afford a few of these
## DoD Planning Budget 2011

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<tr>
<td>Military Personnel</td>
<td>129.6</td>
<td>136.7</td>
<td>138.5</td>
<td>141.1</td>
<td>143.2</td>
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<td>O&amp;M</td>
<td>185.8</td>
<td>186.9</td>
<td>200.3</td>
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<td>207.0</td>
<td>210.2</td>
<td>214</td>
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<td>Procurement</td>
<td>105.5</td>
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<td>RDT&amp;E</td>
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<td>78.7</td>
<td>79.9</td>
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<td>Military Construction</td>
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<td>21.3</td>
<td>16.9</td>
<td>17.2</td>
<td>17.5</td>
<td>17.7</td>
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<td>2.3</td>
<td>1.8</td>
<td>1.8</td>
<td>1.9</td>
<td>1.9</td>
<td>1.9</td>
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<tr>
<td>Other</td>
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<td>3.1</td>
<td>2.4</td>
<td>2.4</td>
<td>2.5</td>
<td>2.5</td>
<td>2.6</td>
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<td><strong>Total</strong></td>
<td><strong>532.5</strong></td>
<td><strong>537.6</strong></td>
<td><strong>548.9</strong></td>
<td><strong>559.0</strong></td>
<td><strong>567.3</strong></td>
<td><strong>576.0</strong></td>
<td><strong>586.4</strong></td>
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<td><strong>Procurement/Total</strong></td>
<td><strong>19.8%</strong></td>
<td><strong>19.7%</strong></td>
<td><strong>20.5%</strong></td>
<td><strong>20.5%</strong></td>
<td><strong>20.5%</strong></td>
<td><strong>20.5%</strong></td>
<td><strong>20.5%</strong></td>
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Defense Outlays % GDP

Defense Outlays as a Share of Gross Domestic Product
Food for thought---

- Some USAF analyses claim that the USAF could be as many as 971 aircraft short of its minimum required inventory of 2,250 fighters by 2030.

- Who built our military airplanes? By WWII:
  - 7,890 by Chance-Vought
  - 8,810 by Martin
  - 13,575 by Bell
  - 15,603 by Republic
  - 17,428 by Grumman
  - 18,381 by Boeing
  - 26,154 by Curtiss
  - 30,696 by Douglas
  - 30,903 by Consolidated Vultee
  - 41,188 by North American
Why Systems Engineering---
0815 - 1200  PLENARY SESSION  Bayview Ballroom
0840 – 0930:  Keynote Address
Lt Gen Richard Scofield, USAF (Ret.), former Commander, USAF Aeronautical Systems Center

0930 - 1000 COFFEE BREAK  Regatta Pavilion ("Tent")

1000 - 1200: Chief Systems Engineers Panel:
Mr Jim Thompson, OUSD(AT&L)DDR&E/SE, Director, Major Program Support  Moderator
Mr. Terry Edwards, SA/ALT, Director, System of Systems Engineering
Mr. Ricardo Cabrerra, ASN/RDA Chief Systems Engineer
Col Shawn Shanley, USAF; SAF/AQR- Chief, Engineering & Technology Management Div.
Program - Tuesday Oct 26 PM

1330-1500 PLENARY SESSION Bayview Ballroom
Program Management Panel: Systems Engineering Discipline: Foundation for Program Success?
Col Leslie Blackham, USAF, Military Assistant, SE Directorate, DDR&E; Moderator
Dr Gary Notte, USA, Product Dir, Fire Support Command & Control
LTC Todd Lamb, USA; Product Mgr, Stryker Development
CAPT Michael Jabaley Jr, USN; Prog Mgr, Virginia Class Submarines
CAPT Rick Muldoon, USN, Prog Mgr, H-53 Heavy Lift Helicopter
Col Janet L. Kasmer, USAF, Dep Dir, Gloal Reach Programs
Col Donald W Robbins, USAF, Cdr, Wideband SATCOM Group

1500 - 1515 COFFEE BREAK Regatta Pavilion(“Tent”)
Program - Tuesday Oct 26 PM

1530-1715  PLENARY SESSION  Bayview Ballroom

Industry Executive Panel: Challenges of Complex Systems: Need for Systems Engineering

Bob Rassa, Raytheon SAS, Director Engrg Programs  Moderator

Mr Brian H. Wells, Raytheon, Vice President, Engineering

Mr. Paul Zavidniak, Northrop Grumman Airborne & Maritime Systems, Technical Fellow

Mr. Patrick Goggin, Boeing Defense Space & Security, Vice President, Development Program Excellence & Chief Engineer, Southern California Engineering

1715-1830  Reception in Displays Area  Regatta Pavillion
Luncheon Activities

Lunches in Regatta Pavilion

Tuesday

Mr. Stephen Welby, Director, Systems Engineering, OUSD(AT&L)DDR&E

Wednesday

- Presentation of NDIA Lt Gen Thomas Ferguson Awards for Excellence in Systems Engineering
  Individual & Group
- Presentation of DoD Top 5 Programs Awards

Thursday: Systems 2020

Ms. Kristen Baldwin, Director, Systems Analysis, Systems Engineering Directorate, OUSD(AT&L)DDR&E
Program - Wednesday Oct 27

0800-0945
1 Systems Engineering Effectiveness  
2 Net-Centric Operations/Interoperability  
3 System of Systems  
4 Early Systems Engineering  
5 Modeling & Simulation  
6 Workforce Development  
7 Enterprise Health Management  
8 Test & Evaluation in Systems Engineering  
9 Human Systems Integration  
10 Logistics Supportability & Sustainment  

Bayview I
Bayview II
Bayview III
Mission I
Mission II
Mission III
Palm I
Palm II
Mariner Point
Crown Point

0945 - 1015 COFFEE BREAK  
1015- 1200 All above continue  
1200 – 1330 Awards Luncheon in Displays Area  

Regatta Pav.

1330: Track 7, Palm I, now Technology Maturity

Other program changes occur at afternoon break
Some Logistics Info---

Displays & Coffee Breaks are in Displays area in Regatta Pavilion.

11 Exhibitors are there to discuss their capability in Systems Engineering

Lunches are in Regatta Pavilion

Proceedings will be on DTIC Site within 3 weeks: http://www.dtic.mil/ndia/2010systemengr/2010systemengr.html

This URL is on inside cover of your salmon Roster booklet
And Special Thanks To---

Technical Program Chairs:

Steve Henry, Northrop Grumman
Dr. Tom Christian, USAF AFMC/ASC

DoD Partners:

Stephen Welby, Jim Thompson, Kristen Baldwin, Nic Torelli, Darlene Mosser-Kerner, and Dona Lee

Session & Track Chairs:

WAY too many to list, visit with them in the sessions-

NDIA Meeting Executive:

Taryn Crowder, with Alison Doherty

NDIA Assistant VP Operations & Division Director

Sam Campagna
Thanks To our Promotional Partner

Raytheon
14th Annual Systems Engineering Conference

October 24-27, 2011
Hyatt Regency Mission Bay
San Diego California

Call for Papers & Call for Displays is in your registration information

Papers Due Date: May 29, 2011

IEEE International Systems Conference
April 4-7, 2011, Montreal Canada
Abstracts due Nov 5, 2010
http://www.ieeesystemscouncil.org/