



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

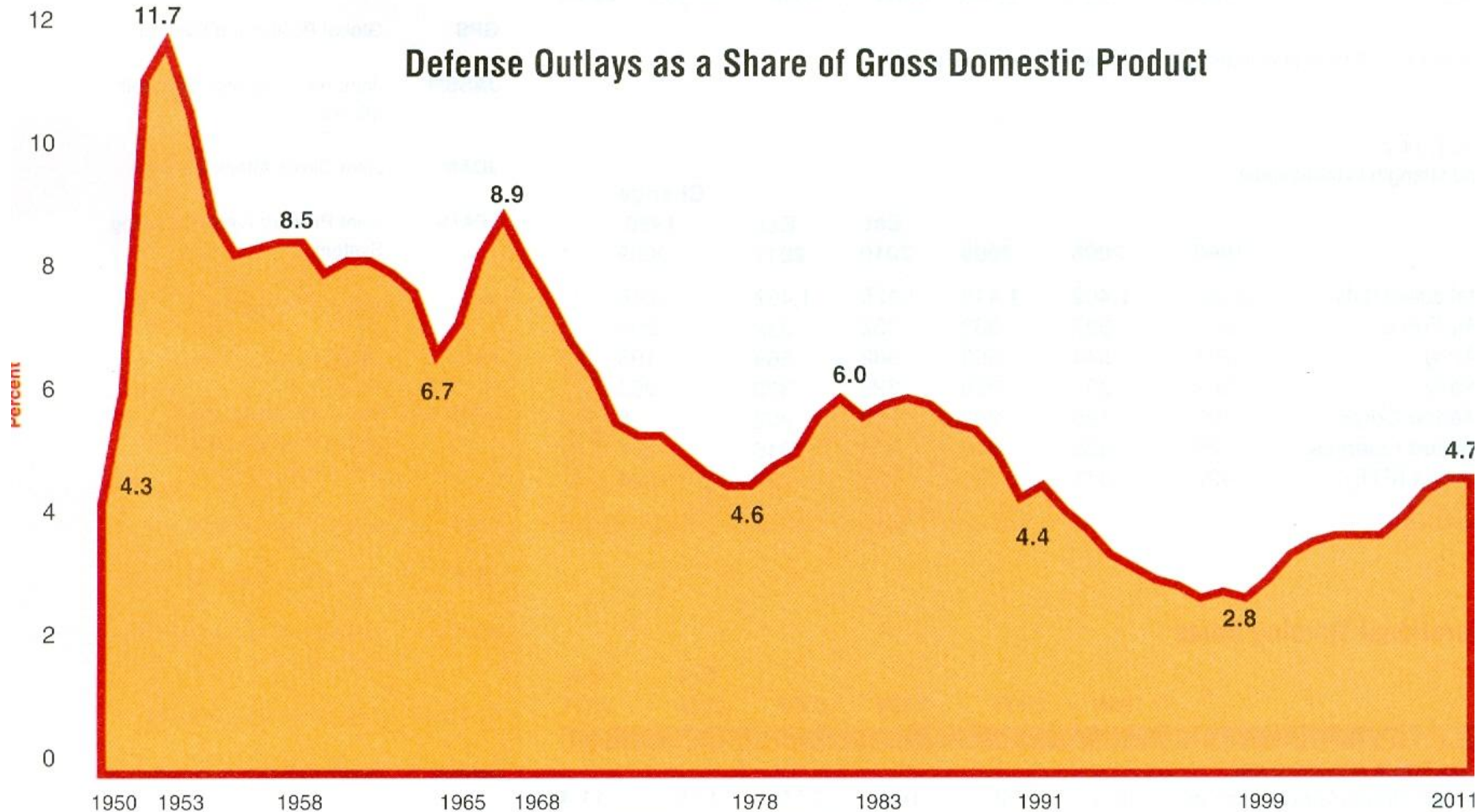
DoD Planning Budget 2011

Dollars Bn by Category	2009	2010	2011	2012	2013	2014	2015
Military Personnel	129.6	136.7	138.5	141.1	143.2	145.3	148.0
O&M	185.8	186.9	200.3	204.0	207.0	210.2	214
Procurement	105.5	106.2	112.9	115.0	116.7	118.5	120.6
RDT&E	82.5	81.1	76.1	77.5	78.7	79.9	81.3
Military Construction	22.7	21.3	16.9	17.2	17.5	17.7	18.1
Family Housing	3.3	2.3	1.8	1.8	1.9	1.9	1.9
Other	3.3	3.1	2.4	2.4	2.5	2.5	2.6

Total	532.5	537.6	548.9	559.0	567.3	576.0	586.4
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Procurement/ Total	19.8%	19.7%	20.5%	20.5%	20.5%	20.5%	20.5%
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Defense Outlays % GDP



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---





Program - Tuesday Oct 26 AM

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 Cabrera, 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, Global 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 | Bayview I |
| 2 Net-Centric Operations/Interoperability | Bayview II |
| 3 System of Systems | Bayview III |
| 4 Early Systems Engineering | Mission I |
| 5 Modeling & Simulation | Mission II |
| 6 Workforce Development | Mission III |
| 7 Enterprise Health Management | Palm I |
| 8 Test & Evaluation in Systems Engineering | Palm II |
| 9 Human Systems Integration | Mariner Point |
| 10 Logistics Supportability & Sustainment | Crown Point |

0945 - 1015 COFFEE BREAK

Regatta Pav.

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/>