DoD's Refocus on Specialty Engineering in Support of Mission Assurance

Chet Bracuto
OSD Systems Engineering/Mission Assurance
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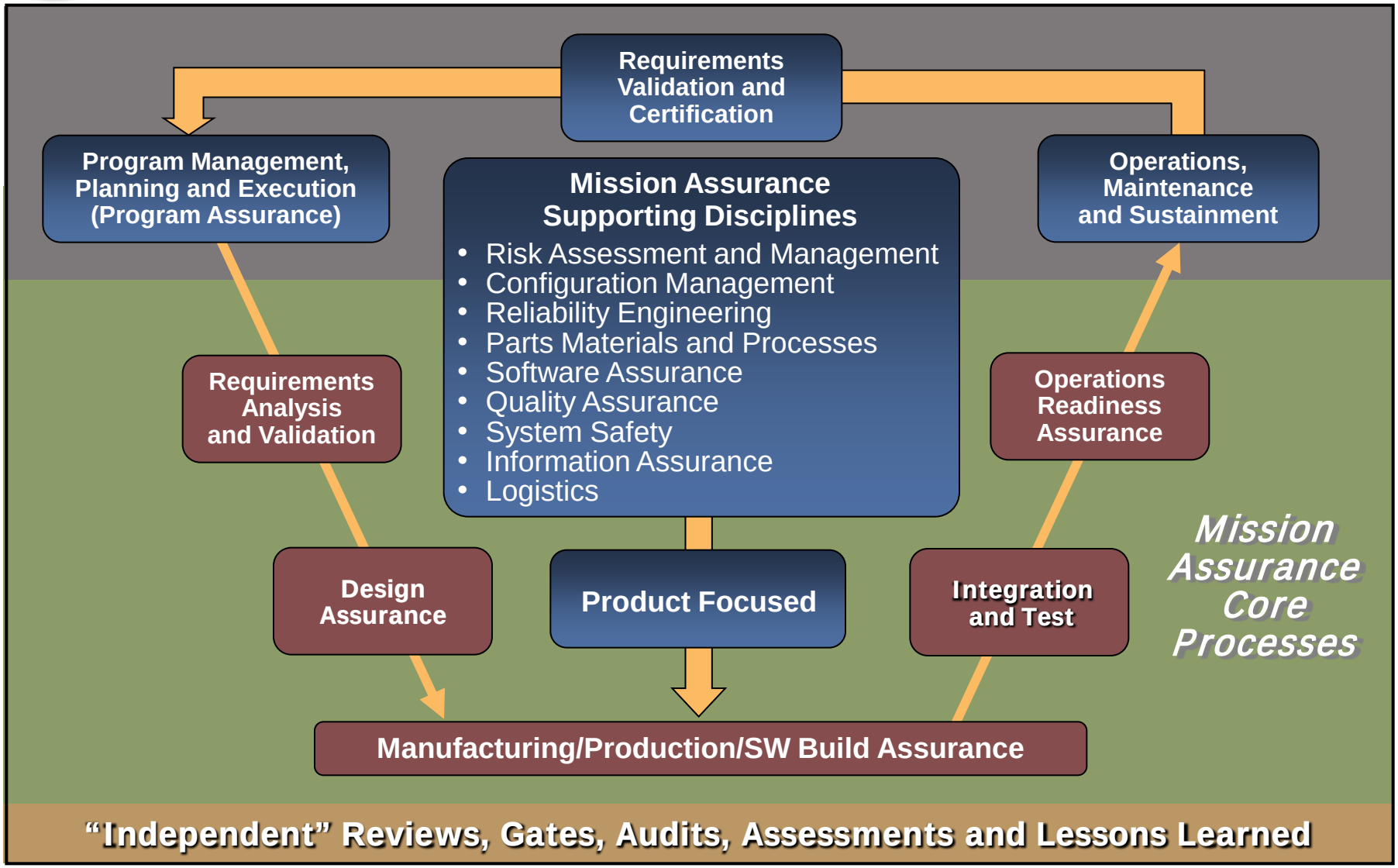
Specialty Engineering, Systems Engineering and Mission Assurance



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Specialty Engineering Common Initiatives

- Have a clear entry point into OSD Systems Engineering
- Identify policy and guidance gaps in the community and fill those gaps: Defense Acquisition Guide Chapter 4 and SEMP DID
- Work with Industry and DoD to identify and address issues negatively impacting the community
- Work with Academia, Industry and DoD to improve the ‘state of the art’ of the community
- Inject the specialty engineering areas early in the acquisition process
- Progress a ‘purple’ DoD in all specialty areas
- Improve training and education for the workforce in each specialty area through Lessons Learned, Best Practices, and Program feedback
- ‘Get the word out’ through Outreach
- Lower program costs

Production, Quality and Manufacturing

- Finalizing the Manufacturing Readiness Levels (MRL) Matrix and MRL Deskbook
- Developing a policy letter for the Services to conduct an MRL-based assessment of manufacturing readiness prior to the acquisition milestones and to incorporate the results of those assessments into all technical reviews throughout the life cycle phases.
- Developing a policy letter for the Services on lead free electronics.
- Holding Quality Advisory Group (QUAG) meetings to address ongoing common quality issues in the Service.
- Working with DLA, the Services and the OSD Comptroller to resolve quality and funding issues related to DLA procurements.
- Holding PQM FIPT team meetings to improve the PQM workforce.
- Progressing on a PQM Competency Assessment.

Reliability, Availability, and Maintainability

- Implementing recommendations from Reliability Improvement Working Group
  - Updated 5000.02, DAG and DAPS methodology
- Initiated DoD Working Group to identify common areas to be worked in the Reliability community to working RAM issues
  - MIL-HDBK-217
  - Develop roadmap for RAM Tech Support Capability
  - Develop gap analysis to identify tools and policy
  - Software reliability
- Released RAM-C to assist in implementing Material Availability KPP
- Participated on GEIA-STD-0009
- Presenting at numerous conferences/submitting papers

Supportability

- Participating in key LM&R Working Group/Teams
  - Product Assessment Support Team
  - Legacy Parts Identification Working Group
  - IUID Working Group
- Working with the Parts Management and DMSMS organizations to meet their needs in all areas
- Working with AIA and NDIA Product Support Teams
- Engaged with the Prognostics Health Management community
- Worked closely to align Chapters 4 and 5 of the DAG
- Working with LM&R on increasing R-TOC opportunities and reducing out-year costs of programs.
- Working with LM&R to get increased visibility in the early stages of acquisition

Reduction in Total Ownership Cost

- Executed the $25M budget line in FY09
- Continue assessment of R-TOC SIP progress toward their cost reduction goals for FY 2010
- Prepared quarterly R-TOC meetings to review and assess Special Interest Programs (SIPs) progress toward meeting the AT&L FY 2010 cost reduction goal for R-TOC
- Developed and assessed Service R-TOC projects for FY 2011 Initiated planning for the future direction and format of R-TOC post FY 2010
- Issued a call for R-TOC projects for FY 2012
- Held a R-TOC/VE track for the 2009 DMSMS Conference and the NDIA Systems Engineering Conference
- Prepared an issue paper for an additional $35M funding for R-TOC projects

Value Engineering

- Led the Value Engineering (VE) Management Advisory Group (MAG) to assess and approve VE awards for FY 2008
- Collected and approved VE savings results for FY 2008
- Planned, conducted and hosted the annual VE awards ceremony
- Published 3 VE papers in ‘Defense AT&L’ and the ‘Defense Standardization’
- Continue VE activities to complete and document VE for FY09 and continuing activities for FY10
- Stood up VE JAT and continued actions to complete the VE JAT recommendations
- Working with OMB on changes to OMB Circular A-131.
- Visited with numerous defense contractors to help facilitate an increase in Value Engineering Change Proposals
- Initiated effort to increase VE usage in service contracts

Human Systems Interface

Objective: Plan for HSI early in the acquisition process to optimize total system performance and ensure that the system is built to accommodate the characteristics of the user population that will operate, maintain and support the system.

- Significant cost avoidance/savings has been realized in applying HSI, but hasn't been effectively institutionalized on acquisition programs. We need to do better.
- Key Highlights:
  - NDAA 2008 and 2009 requires stronger OSD HSI leadership in acquisition programs.
  - AT&L assigns senior OSD officials co-lead by (DDRE SE and S&T) responsible for the management of HSI S&T and acquisition activities.
  - DoDI 5000.02 Enclosure (8) requires HSI to be part of the Systems Engineering Plan.
  - Developed comprehensive DoD HSI Management Plan to strengthen HSI within the acquisition process.
  - OSD and the Services are working closely to strengthen HSI in acquisition programs by: addressing better process integration, resources, research and technology.
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Summary

- Specialty Engineering is Critical to Mission Assurance
- Additional Critical Areas in Mission Assurance
  - Safety
  - Software
  - Information
  - Data Management/Configuration Management
  - Policy/Guidance/Standards
  - Workforce Planning
- Chet Bracuto/OSD Systems Engineering/Mission Assurance

  (703) 695-7793 chet.bracuto@osd.mil