



**Military Operations Research Society  
Work Shop  
Working Group 7 Summary**

**Presented to the  
NDIA Modeling & Simulation Committee**

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# Motivation/Background



- **WSARA 2009 directed the AT&L to address the necessary early technical analysis and planning performed by the Military Departments to improve acquisition program performance**
- **This Congressionally-mandated effort offers an *opportunity to establish the technical leadership, authority, and engagement in the very early conceptual stages of the acquisition lifecycle* to provide the upfront technical preparation needed for the successful selection and development of a materiel solution**
- **Used the MORS workshop to *engage with the Analytic Agenda community to identify areas for renewed activity and explore alternative perspectives and approaches to analysis and engineering* necessary during these early phases to improve materiel capability development**



# Mission

- Identify the appropriate character of the technical and engineering engagement, as well as the planning and analysis necessary at each of the early stages in the acquisition lifecycle
- Explore the alternative perspectives, approaches, implications and solutions to determine the types of analysis/engineering that should be done at each stage, the current practice, and recommendations to close any gaps

## Early Front End

Analysis of future user needs and engineering of new system concepts in a System of Systems (SoS) operational environment

## Pre-MDD

Multiple sufficiently robust, material options to address gap

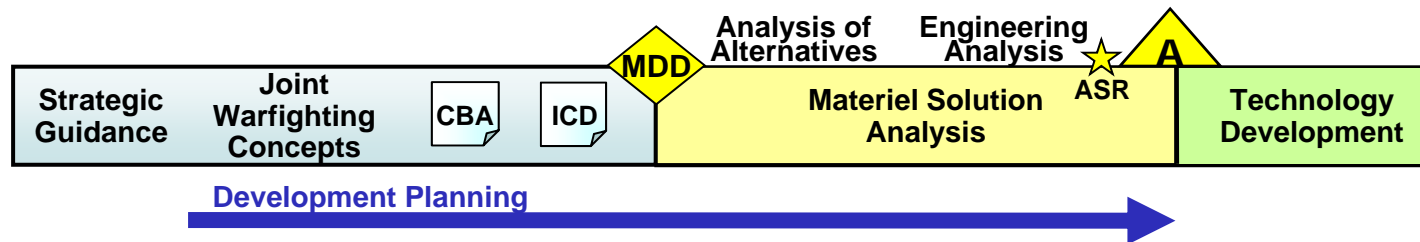
## AoA

Defined costs and benefits of the options including technical risk

## Post-AoA

Preferred solution with clear evidence & understanding of risk

Sufficiently robust, material solution and a risk-based TD Plan



Development Planning is the upfront technical preparation to ensure successful selection and development of a materiel solution



# Results/Findings



- **Development Planning:**
  - Reinforces the materiel community as a stakeholder in the Analytic Agenda
  - Integrates technical and operational contexts to bridge capability needs with potential alternatives
  - Assists in providing the necessary evidence at the Material Development Decision to enable risk-informed decisions for materiel solution analysis and development
  - Provides the engineering and technical basis for strong Analysis-of-Alternatives results (e.g., making trades)
  - Ensures adequate planning for the Technology Development Phase
- **As a result of this workshop and these findings, AT&L plans to *continue its engagement with the analytic community to utilize and help improve the Analytic Agenda and its derivative analysis products* to support the development of materiel capability**