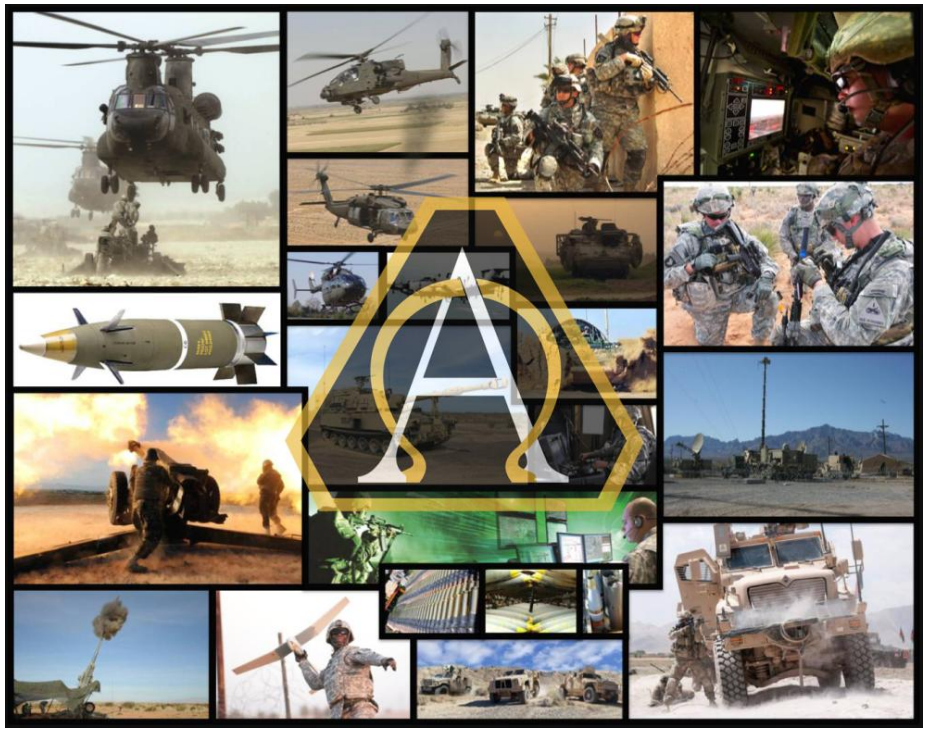
Office of the Chief Systems Engineer

National Defense Industrial Association



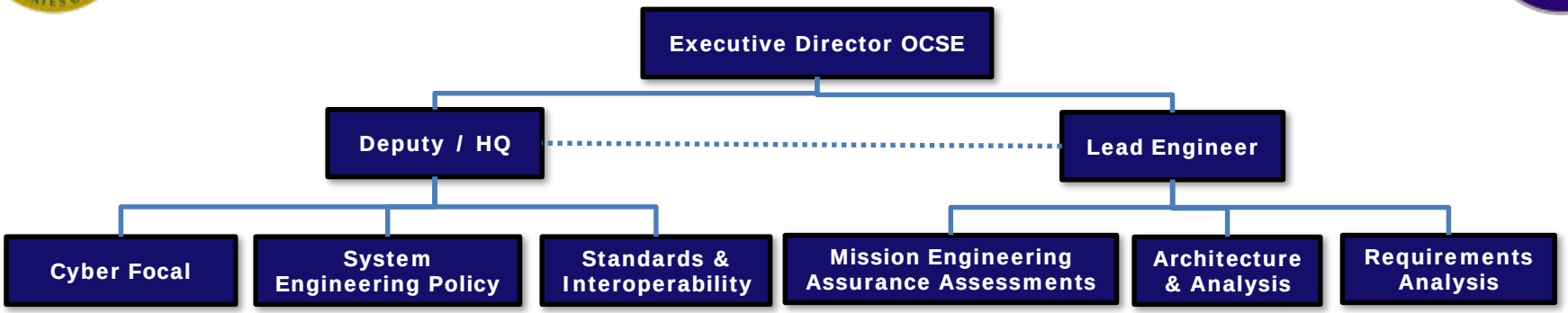
Leo Smith
Deputy Director (Acting),
Office of the Chief Systems Engineer
23 OCT 2018

U.S. Army Modernization

- ARMY MODERNIZATION PRIORITIES: CROSS FUNCTIONAL TEAMS: ARMY DIRECTIVE 2017-24
  - Long-Range Precision Fires
  - Next Generation Combat Vehicle
  - Future Vertical Lift
  - Network Command, Control, Communication, and Intelligence
  - Assured Positioning, Navigation and Timing
  - Air and Missile Defense
  - Soldier Lethality
  - Synthetic Training Environment
- ESTABLISHMENT OF THE UNITED STATES ARMY FUTURES COMMAND: GENERAL ORDERS NO. 2018-10
- ASA(ALT) SoSE&I RE-ORGANIZATION:
  - Rapid Capabilities Office
  - Office of the Chief Systems Engineer

Rapidly Evolving Threats, Warfighting Concepts, and Technologies Require the Army To Innovate, Engineer, and Integrate Quickly - driving the need for Authoritative and Accessible Data, system Models and modern tools, and Architectures Must Underpin Modernization

Office of the Chief Systems Engineer (OCSE)



Vision

An integrated systems engineering process to modernize the Army

Mission Statement

Perform systems engineering for the ASA(ALT) and in support of the Army Materiel Enterprise to ensure delivered equipment meets the mission needs of the force against any potential adversaries

Functions / Goals

- Maintain Army integrated modernization architecture
  - Support development of Army operational architectures in accordance with established standards
  - Develop integrative and Army systems architectures in accordance with established standards
  - Support development of integrated technical architectures in accordance with established standards
- Analyze and verify requirements as they are developed by Army Futures Command or other organizations
- Develop, manage, and communicate Army technical standards
- Analyze Army architectures and conduct trade studies
- Support execution and analysis for Joint Warfighting Assessment
- Integrate cybersecurity and System Security Engineering in ASA(ALT) program lifecycles and joint cyber capability development
- Perform systems engineering reviews and assessments of programs
- Develop systems engineering capabilities and workforce for the Army

Path Forward

- Establish and lead an Army Systems Engineering Working Group:
  - Best Practices development and Implementation
  - Shape Policy
  - Systems engineering workforce development
- Enable a holistic systems engineering and analysis view of operational environment that includes the threats, operational concepts, and employment concepts that drive programs
- Work with PEO's and across the community to ensure there is an authoritative data and architecture system that provides:
  - Operational Data
  - Requirements
  - Integrated Architectures
  - Models, Scenarios, and Threats for Analysis
- Evolve COE more to more broadly cover mission engineering, standards, and interoperability
- Apply cybersecurity and cyberspace engineering as early as possible in lifecycle
- Build systems assessments into JWA and other exercises
- Make systems engineering reviews of programs unintrusive so as not to introduce delays or excessive workload on programs
- Help programs employ standards in a way that does not introduce excessive cost and risk

Questions