Systems Engineering Research
University Affiliated Research Center
Executive Advisory Board

November 13, 2012
Outline

10:00 Welcome and Introductions  (All)
10:05 EAB Overview  (Kristen Baldwin)
10:20 SERC Update  (Art Pyster)
10:35 Discussion  (All, moderated by Ms. Baldwin)
11:20 Wrap-up  (Art Pyster)
11:30 Adjourn for Lunch
Systems Engineering Research Center (SERC) Overview

• DoD and Intelligence Community established the SERC, an University Affiliated Research Center (UARC) in September 2008
  – Long term, strategic relationship for systems engineering research
  – Five year contract with Stevens Institute, with 23 collaborating universities

• ASD(R&E) and Intelligence Community are the original sponsors
  – DAU, Air Force and Army RDECOM are now also sponsors

• SERC has been awarded more than $24M for systems engineering research
EAB Purpose

• Designated SERC advisory body
• Provides oversight
• Establishes strategic direction and overarching research priorities
• Provides access to needed DoD and Intelligence Community (IC) resources
  – Subject matter experts, designated data, etc.
• Encourages partnering with collaborating institutions
• Facilitates the integration of the research efforts
• Ensures research is consistent with SERC mission and core competencies, responsive to customer needs
SERC Highlights

• ASD(R&E) core funding
  – $5M planned for FY14 POM

• Established on-going SERC research programs
  – Four strategic research thrusts

• Ability to do classified research

• Comprehensive review

• Funding challenges for IC, other sponsors
SERC Research Strategy

Enterprises & Systems of Systems
- Complex
- Non-deterministic
- Evolving
- Human centric

Trusted Systems
- Systemic:
  - Safety
  - Security
  - Dependability
  - Survivability

Workforce Shortages

Human Capital Development
- Personalized, experiential,
  Accelerated development

Systems Engineering Transformation
- Agile
- Responsive
- Affordable
- Scalable

Complexity

Criticality
EAB Action Items

Complete: 9

- e.g., Strategic Communications Plan, Engage specific sponsors, HBCU, SERC Fellows Program

On-going: 8

- e.g., Establish formal FFRDC relationships, Reach out more broadly to IC, Communicate research to EAB

Not Complete: 2

- SERC meeting with DISA leadership
- SERC work with OSD to conduct technology transfer workshop
EAB Discussion Topics

Increasing the SERC’s value:

• Broadening the SERC’s customer base
• Transitioning SERC research into practice
• Stakeholder priorities for SE research
• Other…
EAB Wrap-up

Recap of Actions

Other Business

Adjourn for Lunch

– Georgetown Faculty Club
BACK-UP CHARTS
EAB Member Roles and Responsibilities

- The EAB exists to leverage the experiences, expertise, and insight of key individuals at organizations committed to advancing the practice of systems engineering within the DoD and IC. The EAB members are not directly responsible for managing project activities, but provide support and guidance for those who do. Thus, individually, EAB members should:
  - Attend scheduled meetings, prepared to discuss scheduled issues brought before the EAB;
  - Address any action items assigned to them by the EAB;
  - Provide the EAB Chairs with the position of their respective organization to include providing their organization’s SE research needs, and status of involvement in SERC research;
  - Support the EAB Chairs in determining the disposition of changes or issues brought before the EAB for adjudication;
  - Recommend and carry out actions in support of the EAB Chair’s decisions;
  - Understand the strategic implications & outcomes of initiatives being pursued;
  - Be an advocate for the application of the research results;
  - Review the status of the SERC;
  - Coordinate to ensure establishment of appropriate technical management on tasking activities for which their organization provides funding;
  - Ensure the SERC’s outputs meet the requirements of the business owners and key stakeholders;
  - Advise on the balance of conflicting priorities and resources; and
  - Foster positive communication outside of the EAB regarding the research projects and outcomes.