

## **GSAW 2020 Tutorial C:**

### Alternative Software Development Approaches

**Length:** Half day

#### **Overview:**

An overview of the Agile Framework and an introduction to the Scrum development process. Common myths and misconceptions will be covered along with when and when not to use this tool. How Agile is different in acquisitions and what can be expected at each phase (RFI, RFP, Source Selection, and Execution). How other federal government agencies are using Agile. What tools and resources are available to assist with making the decision to use agile and to help manage Agile projects.

- Upfront Problem A's and Problem B's with Agile
  - What Agile is Geared to Solve
  - The More Human-side of Agile
  - Real life use cases relating to ground procurements
- Review and compare traditional and agile methodologies
  - What is Agile?
    - Agile Manifesto & Principles
    - Agile vs. Plan Driven methods
  - Intro to Agile development processes
    - Lean, Scrum, DevOps, Kanban, SAFe, LeSS, Nexus
- Why Agile, why now
  - Key drivers in the DoD and IC Communities
- Alternative software development methods
  - Changed Roles from a traditional Team
  - New Roles on an Agile team
    - Product Owner
    - Scrum Master
    - Agile Coach
  - Agile Servant Leadership
  - Where the government is critical and should expect to be involved
  - Government as Product Owner
    - Roles and Responsibilities
    - How the methodology plays into the government ground systems development cycle
  - Quality in Agile
- How is Agile different in ground acquisitions
  - General Considerations
  - Requirements Development and Acquisition Planning
  - System Engineering Rigor – Where/How Does Agile Map? What about gate reviews?
  - System Engineering Rigor – What is Adequate SE Rigor at PDR
  - Contract Types and Vehicles – How HHS decides what contract type to use
  - What does Agile look like in the Ground Acquisition Cycle?
  - Comparison of Service Contract Types
  - Development example of using multiple contract types
  - RFIs and Agile
  - Contract Incentives
  - Evaluation Criteria
  - Contract Administration and Execution
  - Contract Administration – EVM Reporting

- Resources, help and guidelines
- Where/How is agile being used in DoD
- Suggestions for Agile Projects
- Tools and Supporting Infrastructure
- Conclusion and Recommendations

**Instructors:** Supannika Mobasser, Curt Holmer, and Brook Cavell, The Aerospace Corporation

**Biographies:**

**Brook Cavell** is a PMI Agile Certified Practitioner (PMI-ACP®) and a Project Management Professional (PMP). Brook had started as an agile developer doing extreme programming then later on being the product owner for multiple DHS projects.

**Curt Holmer** is a Certified SAFe® Program Consultant (SPC), a PMI Agile Certified Practitioner (PMI-ACP®) and a Project Management Professional (PMP). Curt has participated, led and coached agile projects in both the federal and corporate arenas.

**Dr. Supannika K. Mobasser** is a certified Scrum Master, a certified Product Owner, and a certified SAFe® Agilist. Supannika has participated in several Agile programs both in the commercial and government settings. Her research interest areas are Agile and Lean Software Development, Expediting Systems Engineering, Software Process Improvement, Software Process Quality Assurance, and Software Metrics and Measurement.

**Description of Intended Students and Prerequisites:**

Geared toward individuals with little to moderate agile experience. No previous contracting or agile expertise is assumed.

**What can Attendees Expect to Learn:**

Key principles of Agile methodologies and Agile in government contracting. What a successful project should look like and what the Government's role is.