

# 4<sup>th</sup> Annual V&V Summit Introduction

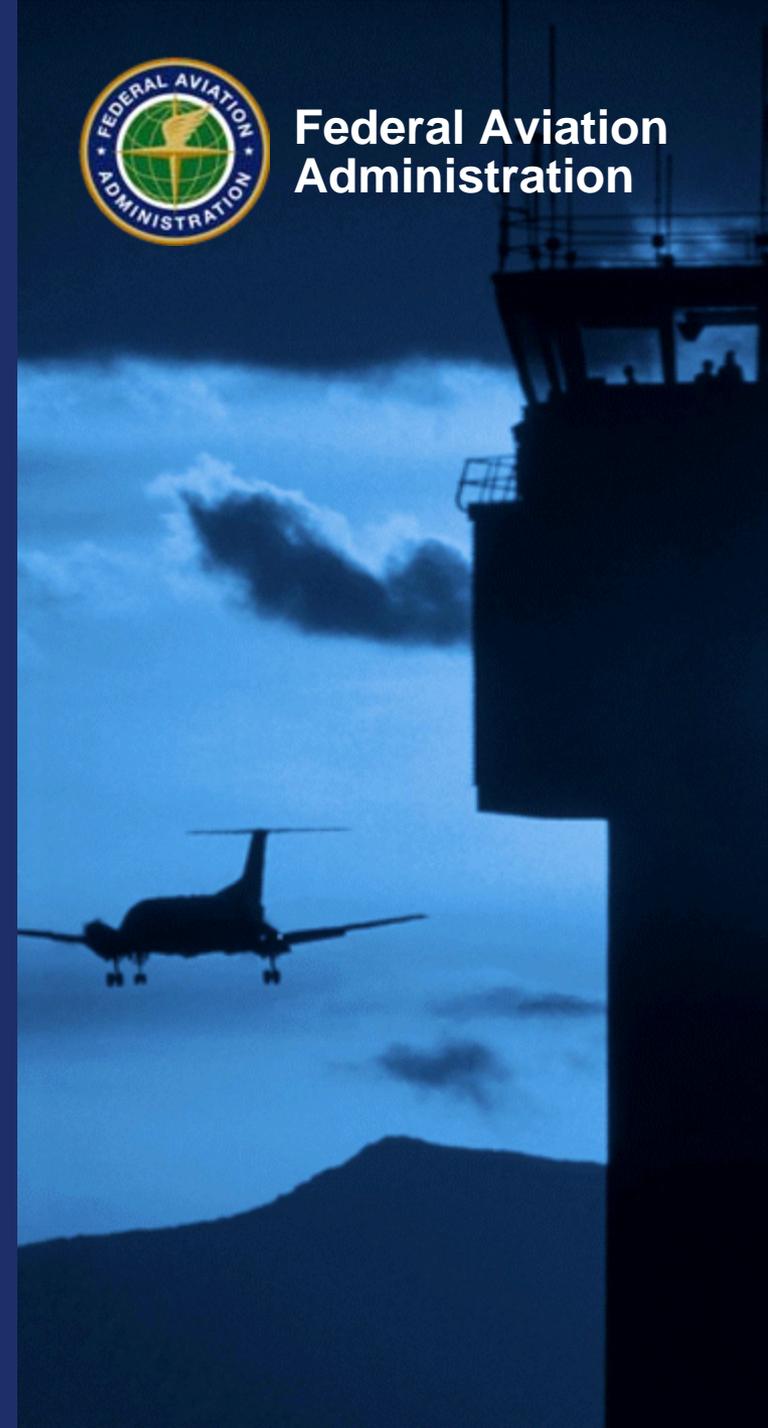


Speakers: Paula Nouragas  
John Frederick  
Mike Gallagher

Date: October 22 & 23, 2008



Federal Aviation  
Administration



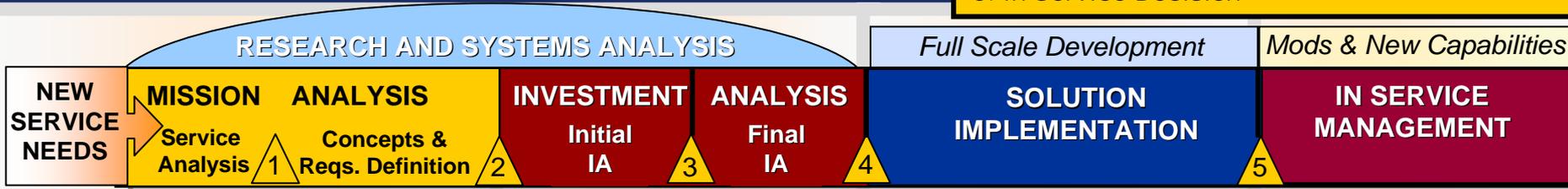
# V&V Summit Opening Remarks

- **Theme: Creating Seamless V&V in the product lifecycle**
- **Summit Objectives**
  - Promote seamless V&V
  - Provide common view/vision
  - Foster increased efficiency and effectiveness in the ATO through V&V



# AMS and V&V

- :KEY
1. Mission Need Decision
  2. Investment Analysis Readiness Decision
  3. Initial Investment Decision
  4. Final Investment Decision
  5. In-Service Decision



**Concept Formulation**

**Concept Feasibility**

**Concept Development**

**Low-Fidelity Modeling**

**High-Fidelity Modeling**

**Representative System**

**Mature Product**

**Product Acceptance**

**In-Service**

- Support Identification & prioritization of critical needs
- Support determination of best alternative solutions
- Support development and Validation of Concepts
- Feasibility demos

- Prototyping/Evaluations of candidate solutions
- Support development and refinement of requirements
- Verification/Validation of requirements/concepts

- Verification & validation design/work products
- System test and field familiarization testing (DT & OT)
- IOT&E

- T&E of In-Service Fixes
- T&E of In-Service modifications and enhancements



# Simple Definition of V&V

## Verification:

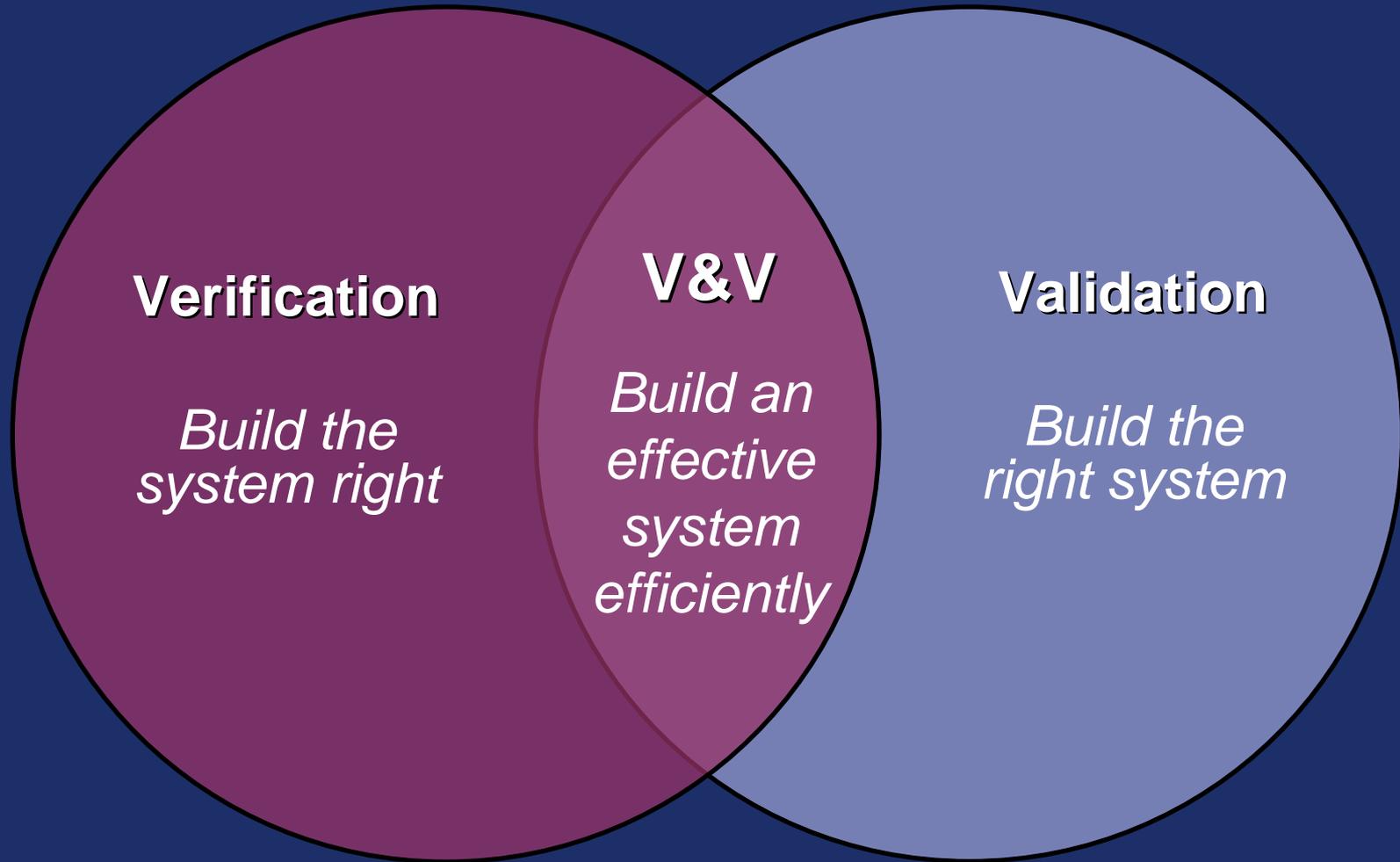
- Ensures selected work products meet specified requirements

## Validation:

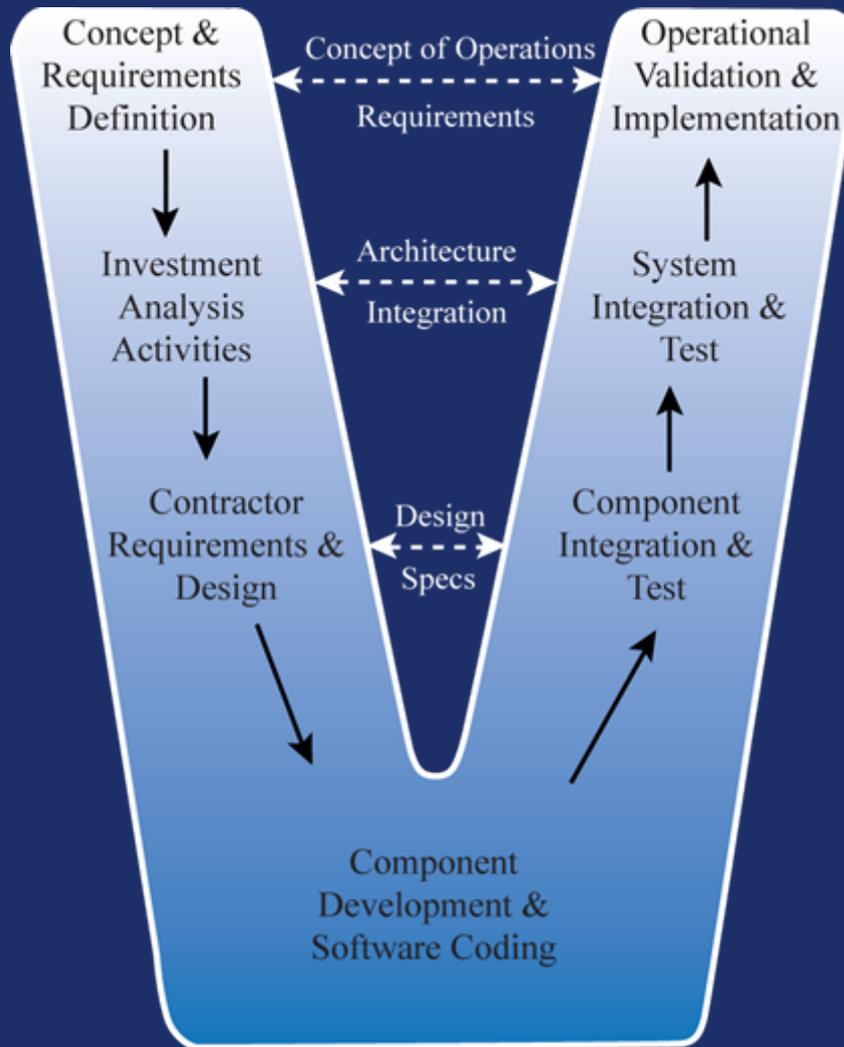
- Ensures that products and product components will fulfill their intended purpose when placed in the intended environment

**Based on the CMMI® model**

# Concept Behind Quality V&V



# V&V and the Lifecycle V-Model



# Constructs for Seamless V&V

