Welcome and Introductions
Process Overview
Systems Engineering “V”
Cross-Cutting Activities
Applying SE to a Project
Establishing SE in your Organization
Process Improvement Discussion
Wrap Up

Session 7: Process Improvement Discussion

These materials developed under the RITA National ITS Architecture Program

U.S. Department of Transportation
Research and Innovative Technology Administration
This is an interactive discussion session to

- Review use of systems engineering in your current project development processes
- Discuss opportunities for better use of SE in project development

Objectives

- Encourage more productive use of systems engineering on ITS projects
  - And improve compliance with FHWA Rule 940 requirements

Deliverable

- Capture observations & recommendations in real-time
- Deliver electronic copy of the session charts to participants afterwards
General Process Improvements

- Overall project development process…
Technical project development processes, including Rule 940 requirements…
Project Management Process Improvements

- Project planning, monitoring, and control…
Support Environment

Improvements

- Supporting activities and tools…
Process Improvement
Moving from Chaos to Discipline

Random motion – lots of energy, not much progress
Individual effort
Frequent conflict
You never know where you’ll end up

Directed motion – every step brings you closer to the goal
Coordinated efforts
Cooperation
Predictable results

Processes can make the difference

From CMMI Appraisal Tutorial – Mike Phillips
### Process Improvement Benefits

<table>
<thead>
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<th>Improvements</th>
<th>Median</th>
<th># of Studies</th>
<th>Low</th>
<th>High</th>
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Collected by Software Engineering Institute for CMMI, August 2006
Process Improvement in your Organization

- **Near-term tactical effort**
  - Collect lessons learned from your last project
  - Improve your process to avoid problems on your next project
  - “Solo Process Improvement”

- **Long-term strategic effort**
  - Build on near-term successes
  - Gradual introduction
    - Start with processes with greatest impact on the bottom line
  - Enlist senior management support
    - Must support organizational goals
    - Must be able to measure progress