The Need

• The NGEC charged with establishing a nationwide equipment pool

• Requirements and Specifications developed.

• Further documentation will be developed to support equipment acquisition and maintenance

• Systems Engineering processes needed to assure the documentation meets stakeholder needs and is kept current.
The Need (cont’d)

• **Required Documentation and Processes**
  – **Requirements** - elicitation, analysis, validation & documentation
  – **Specifications** - development & validation
  – **RFP Documentation and Procedures** (source material)
    • Proposal Evaluation Criteria
    • Acceptance Criteria
  – **Independent Verification & Validation** -
    • Specification & the Final Product
  – **Maintenance Plans & Life Cycle Support**
    • Warranties
    • Problem Identification / Resolution
    • Spares and Special Tooling
    • Upgrades
    • Major Maintenance, Overhauls and Rebuilds
  – **Configuration Management & Document Control**
    • Version Control
    • Equipment Pool Inventory
    • Spares Inventory Support
  – **Standardization** –
    • Candidate Components / Systems
    • Approach for achieving
Goals

• Long Term:
  – Develop, implement & maintain a Systems Engineering process that meets the needs of the Corridor Equipment Pool and the NGEC Stakeholders

• Immediate Term
  – Assemble working group to define desired documents and procedures
  – Estimate level of effort, budget and schedule needed to develop documents and procedures
  – Estimate annual level of effort and budget to support NGEC Systems Engineering functions
  – Recommend a NGEC Systems Engineering organization and responsibilities of stakeholders and participants
  – Present recommendations to the ‘Executive Committee’ during the February Annual meeting
  – Secure Funding and support for the Systems Engineering Process
Work Plan, Schedule & Team

• Activities of the core group have been initiated
  - FRA lead, NY DOT and CalTrans advisors
  - Others invited to join

• Weekly conference calls to achieve short term goals (through February)

• Draft document 1 week prior to the Annual Meeting

• Please contact Jeff Gordon - Volpe if interested in joining effort.

• 2pm Tuesday Conference Call – (877)-336-1274 Num 3160346#
Introduction

• Most people in this room are familiar with activities such as:
  – Requirements Analysis & Documentation
  – Specification Development
  – Verification & Validation
  – Configuration Management, etc.

• In fact, several of us are actively involved in one or more of these activities as part of our normal professional routines.

• “Systems Engineering” provides a framework for such activities, and is intended to formalize both the Technical & Management processes, protocols, and structures needed for a successful project.