

**FRA**  
**Earned Value Management System**  
**Process History &**  
**NOvA Implementation**

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# Presentation Outline

- EVMS History at the Lab
- Requirements
- EVMS Development/Implementation Project
- EVMS Documents
- Key Dates
- NOVA EVMS Implementation

# Fermilab Earned Value History

- EV has been performed at some level since the Main Injector Project in the 1990s.
- In 1998 the Lab purchased Welcom's (now Deltek) Cobra software tool for managing project costs, measuring earned value, and analyzing budgets, actuals and forecasts. The software was purchased to support the NuMI Project.
- Cobra software was made the Lab's standard for measuring and reporting EV.
- 1<sup>st</sup> Draft of Fermilab EVMS Description generated in 2006, no implementing procedures at that time
- Each new project used the draft Fermilab EVMS Description and developed a project specific EVMS
- FRA/Fermilab determined the need for a standard lab-wide EVMS process, and initiated the development of the FRA EVMS and Implementing procedures

# Requirement to utilize EVMS on FRA/Fermilab Projects

- Per DOE O 413.3A & DOE M 413.3-1 “Program and Project Management for the Acquisition of Capital Assets”
  - At CD-2, projects with a TPC  $\geq$ \$5M and  $<$ \$20M are not required to utilize an EVMS, but an alternative performance management system must be described in the respective Project Execution Plan. => MINERvA
  - At CD-2, projects having a TPC  $\geq$ \$20M and  $<$  \$50M are to have a self-certified EVMS that is compliant with ANSI/EIA-748-A. => DECam
  - At CD-2, projects having a TPC  $\geq$  \$50M are required to have an ANSI/EIA-748-A compliant system certified by the DOE Office of Engineering and Construction Management (OECM). => NOvA

# FRA EVMS Development and Implementation Project Participants

- Project Co-Sponsors: Fermilab Associate Directors Steve Holmes & Peter Garbincius
- Core Team: representatives from across the Fermilab organization with different areas of project management responsibilities
- Oversight Committee: senior managers from Fermilab organizations

# Current EVMS Documentation (effective 17 October 2008)

- EVMS Documents
  - FRA Earned Value Management System Description
  - 12.PM-001 Project WBS, OBS, RAM
  - 12.PM-002 Control Accounts, Work Packages, Planning Packages
  - 12.PM-003 Work Authorization and Funds
  - 12.PM-004 Project Scheduling
  - 12.PM-005 Cost Estimating
  - 12.PM-006 Monthly Status and Reporting
  - 12.PM-007 Change Control
  - 12.PM-008 EVMS Surveillance & Maintenance
- Ownership
  - OPMO - responsible for maintaining the EVMS and maintaining interfaces with existing Fermilab business and management systems
  - QQBP - responsible for surveillance of the EVMS to ensure Lab adherence to the approved certified system

# Key Dates

- Director's/DOE FSO Performance Management Review of NOvA (Jun-07)
- NOvA EIR (Nov-07)
- Closeout of EVMS Action Items from prior Director's and DOE reviews (Apr & May-08)
- FRA EVMS Project Kickoff (16-Apr-08)
- System Description and Implementing Procedure Approval (17-Oct-08)
- NOvA to use FRA Approved System for Oct. Reporting (Nov-08)
- OECM Pre-Meeting (6-Nov-08)
- OECM One Day Readiness Review (Proposed week of 8-Dec or 15-Dec)
- OECM On-Site Review (proposed week of 16-Mar-09)

# NOvA EVMS Implementation Prior to Current System

- Project-specific implementation plan developed and implemented prior DOE CD-2 Review (Oct-07)
- WBS and OBS understood and used in development of cost and schedule
- CAMs same as L2 managers for NOvA
- PMTs assigned and used to measure progress
- Fermilab accounting system provides actual costs and works with Cobra to provide earned value reports
- Monthly reporting begun by CD-2 Review
- Change Control processes in place being used
- Configuration Management processes in place and used for project documents

# NOvA EVMS Changes for Implementing Current System

- Streamlined number of control accounts
- Developed CAM notebooks
- Finalized all Work Authorizations
- Determined need for CAMs at lower levels and assigned them
- Implemented FRA System variance reporting thresholds for CPI & SPI
- Tailored monthly reporting beginning with October 08 report
- Performed additional training for CAMs and project personnel
- Made original NOvA-specific EVMS Implementation Plan obsolete

# NOvA SPI & CPI plots

