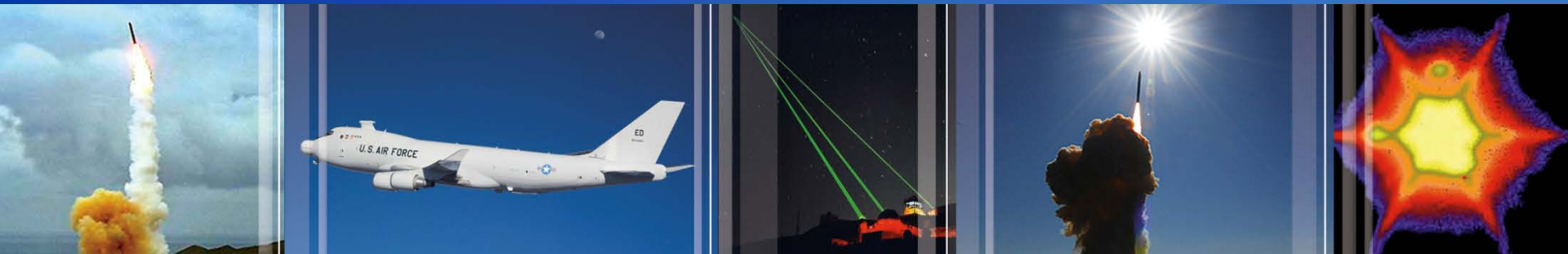




Defense, Space and Security Strategic Missile & Defense Systems



OPTM, A Robust Tool For Process Compliance

National Defense Industrial Association
12th Annual CMMI®
Technology Conference & User Group

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OPTM – A Robust Tool For Process Compliance

Strategic Missile & Defense Systems



Organizational Process Traceability Manager (OPTM)



OPTM Version 5

... INVENTING THE FUTURE

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[OPTM Home](#)

[Huntsville Host - SM&DS Processes and Procedures](#)

Agenda

- Background
- Tool Strategy and Goals
- Design Summary
- Application Structure
- Practicalities
- New Horizons

!!! NOTICE !!!

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CMMI Query Page

CMMI Category:

Process Area:

Practice Type:

Practice:

Project:

Suppress Notes

Display Closed Notes on Worksheet

Reports

- Compliance Worksheet
- Actions, Notes and Findings
- Assessment Findings Counts
- Project and Division Appraisal Metrics
- Project Population Metrics
- Appraisal Team Consensus Report
- Project Data Sheets
- Project Compliance Data Report

Support Links

- [CMMI EV-v](#)
- [OPTM Change Log](#)
- [OPTM Users Guide](#)
- [OPTM Training for Projects](#)
- [OPAL](#)

Process Evidence

Standards Data Entry and Editing	<input type="radio"/>	<input type="radio"/>
Project Data Entry and Editing	<input type="radio"/>	<input type="radio"/>

User: Forrest W

Access: A - Administration

Project ID:

[Access List](#)

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Purpose

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Since 2003, The Boeing Company, Huntsville, AL, has experienced great success using an in-house database tool for appraisals. The database tool has endured various process initiatives, and many program changes while adapting to the requirements of each appraisal.

The purpose of this presentation is to share the experiences and challenges, both positive and negative, of an appraisal tool entitled Organizational Process Traceability Manager (OPTM).

OPTM – A Robust Tool For Process Compliance

Strategic Missile & Defense Systems



Organizational Process Traceability Manager (OPTM)



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Agenda

- Background

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CMMI Query Page

Query Parameters		Reports	
CMMI Category	<input type="text"/>	<input checked="" type="radio"/> Compliance Worksheet	
Process Area	<input type="text"/>	<input type="radio"/> Actions, Notes and Findings	
Practice Type	<input type="text"/>	<input type="radio"/> Assessment Findings Counts	
Practice	<input type="text"/>	<input type="radio"/> Project and Division Appraisal Metrics	
Project	<input type="text"/>	<input type="radio"/> Project Population Metrics	
<input checked="" type="checkbox"/> Suppress Notes		<input type="radio"/> Appraisal Team Consensus Report	
<input type="checkbox"/> Display Closed Notes on Worksheet		<input type="radio"/> Project Data Sheets	
<input type="button" value="Submit"/> <input type="button" value="Reset"/>	Standard <input type="text" value="CMMI"/>	<input type="radio"/> Project Compliance Data Report	
Support Links			Process Evidence
CMMI-DEV-v1.3.doc		Standards Data Entry and Editing	<input type="radio"/>
OPTM Change Log		Project Data Entry and Editing	<input type="radio"/>
OPTM Users Guide			
OPTM Training for Projects			
OPAL			

User: Forrest W

Access: A - Administration

Project ID:

[Access List](#)

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50 years of Boeing in Alabama

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A Legacy of Performance

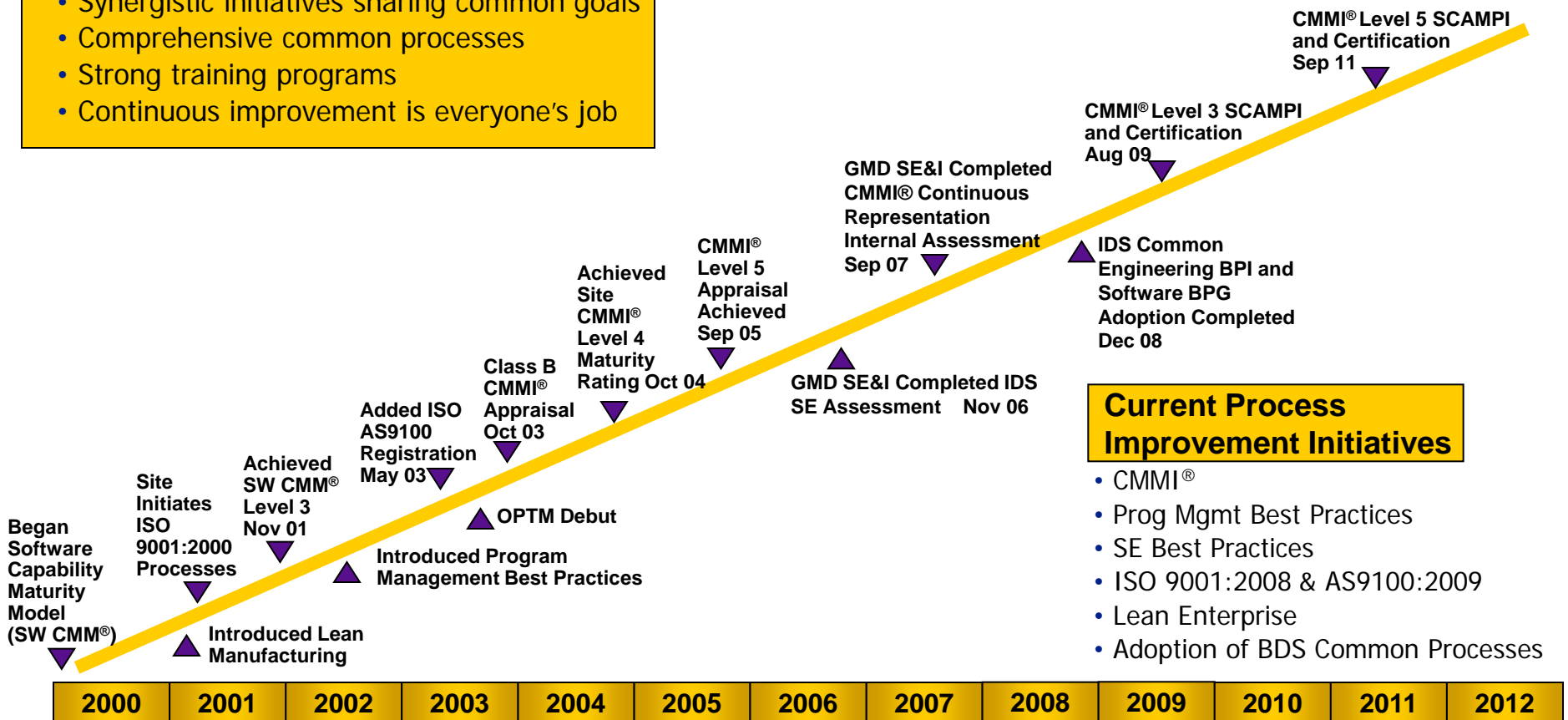
- Saturn V (1962)
- Lunar Rover (1970)
- Military Simulation and Training(1980)
- Avenger (1985)
- Space Station (1987)
- GMD (1998)
- Huntsville Design Center (2004)
- Space Launch System (2011)



Continuous Process Improvement is a Hallmark of Boeing Huntsville

Strategic Missile & Defense Systems

- Aggressive adoption & deployment
- Synergistic initiatives sharing common goals
- Comprehensive common processes
- Strong training programs
- Continuous improvement is everyone's job



Current Process Improvement Initiatives

- CMMI®
- Prog Mgmt Best Practices
- SE Best Practices
- ISO 9001:2008 & AS9100:2009
- Lean Enterprise
- Adoption of BDS Common Processes

Boeing/SM&DS Committed to Process Discipline and Excellence!

OPTM – A Robust Tool For Process Compliance

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Organizational Process Traceability Manager (OPTM)



OPTM Version 5

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Agenda

- Tool Strategy and Goals

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CMMI Query Page

Query Parameters		Reports	
CMMI Category	<input type="text"/>	<input checked="" type="radio"/> Compliance Worksheet	
Process Area	<input type="text"/>	<input type="radio"/> Actions, Notes and Findings	
Practice Type	<input type="text"/>	<input type="radio"/> Assessment Findings Counts	
Practice	<input type="text"/>	<input type="radio"/> Project and Division Appraisal Metrics	
Project	<input type="text"/>	<input type="radio"/> Project Population Metrics	
<input checked="" type="checkbox"/> Suppress Notes		<input type="radio"/> Appraisal Team Consensus Report	
<input type="checkbox"/> Display Closed Notes on Worksheet		<input type="radio"/> Project Data Sheets	
<input type="button" value="Submit"/> <input type="button" value="Reset"/>	Standard CMMI <input type="text"/>	<input type="radio"/> Project Compliance Data Report	
Support Links			Process Evidence
CMMI-DEV-v1.3.doc		Standards Data Entry and Editing	<input type="radio"/>
OPTM Change Log		Project Data Entry and Editing	<input type="radio"/>
OPTM Users Guide			
OPTM Training for Projects			
OPAL			

User: Forrest W

Access: A - Administration

Project ID:

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OPTM – Strategy and Goals

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Tool Strategy

- **Map Industry Standards (e.g. CMMI) to Boeing Enterprise Common Processes, and in turn to Project Specific Processes**

Tool Goal

- **Provide means for Project to demonstrate satisfaction of approved Company Practices, and at the same time Industry Standards**
- **OPTM: primary intent of this approach is to reduce the cost and complexity of meeting external standards that are important to Boeing as strategic and sometimes contractual guidance**

OPTM – Strategy and Goals

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- **A view of Process to Standards Mapping**



Additional Drivers

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SM&DS Site Drivers

- Single access portal for appraisal lifecycle
 - Exception: classified content
- Support simultaneous, multi-user, multi-purpose activities
- Quick response times for viewing access
- Roles clearly defined and enforced
- Configuration management of data

Individual Project Drivers

- Access to pertinent areas
- Protection of Project Data
- Ease of use

October 2011

**Organizational Process Traceability Manager (OPTM)
User's Guide**

This User's guide provides an overview of the tool background and purpose, along with a summary of the tool implementation and the operational functions and user modes supported. This manual is organized as follows:

- [Background](#)
- [Information Technology Implementation](#)
- [System Operation](#)
 - [Functional Process Management](#)
 - [Project Process Tailoring and Evidence](#)
 - [Assessment Management and Execution](#)
 - [Assessment Results and Communication](#)
- [Tool Administration and Set-up](#)

OPTM – A Robust Tool For Process Compliance

Strategic Missile & Defense Systems



Organizational Process Traceability Manager (OPTM)



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Agenda

- Design Summary

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CMMI Query Page

Query Parameters

CMMI Category

Process Area

Practice Type

Practice

Project

Suppress Notes

Display Closed Notes on Worksheet

Standard

Support Links

- [CMMI-DEV-v1.3.doc](#)
- [OPTM Change Log](#)
- [OPTM Users Guide](#)
- [OPTM Training for Projects](#)
- [OPAL](#)

Reports

- Compliance Worksheet
- Actions, Notes and Findings
- Assessment Findings Counts
- Project and Division Appraisal Metrics
- Project Population Metrics
- Appraisal Team Consensus Report
- Project Data Sheets
- Project Compliance Data Report

Process Evidence

Standards Data Entry and Editing	<input type="radio"/>	<input type="radio"/>
Project Data Entry and Editing	<input type="radio"/>	<input type="radio"/>

User: Forrest W

Access: A - Administration

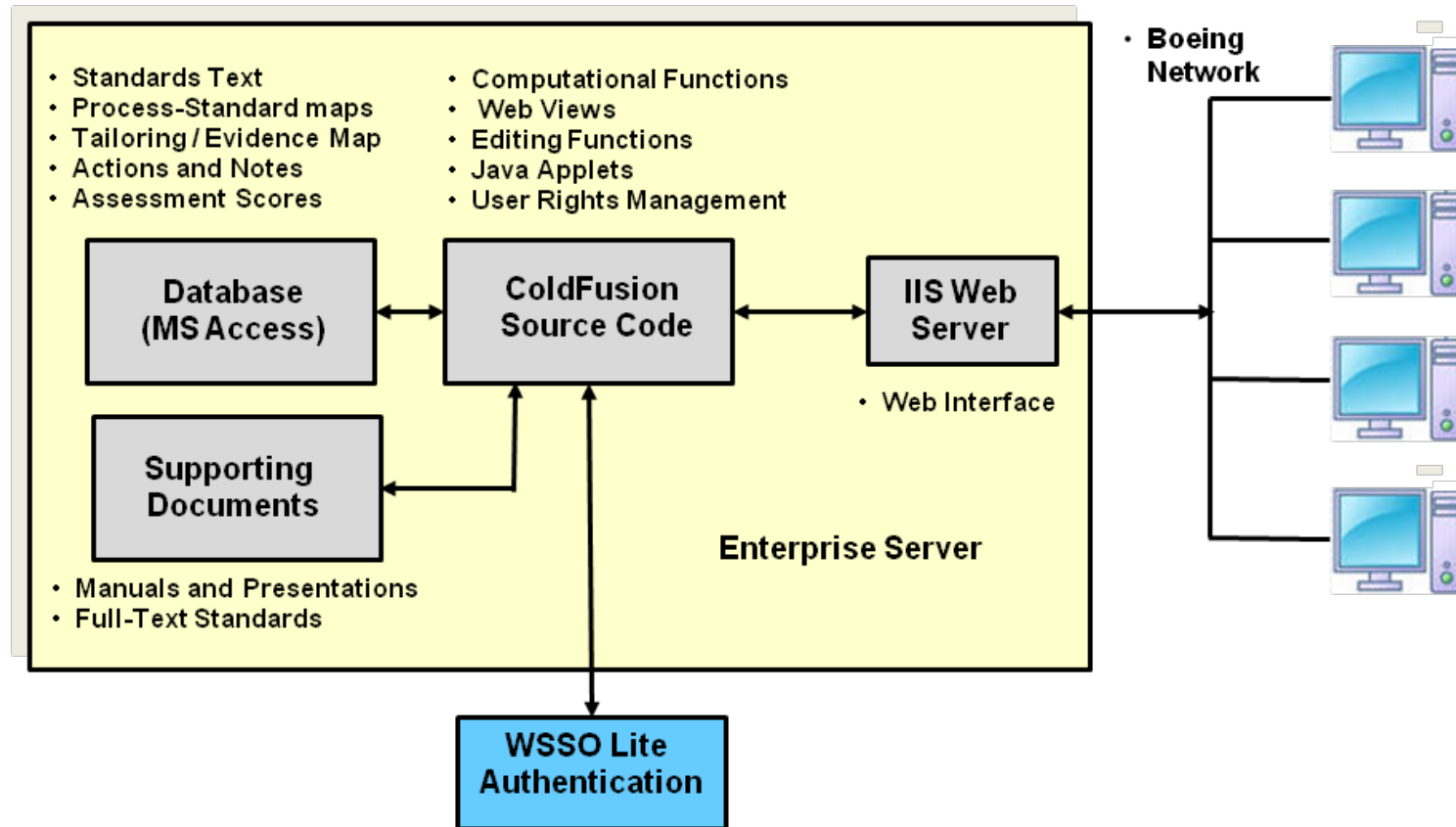
Project ID:

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OPTM – Implementation Design

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A simple, effective implementation within our Enterprise environment

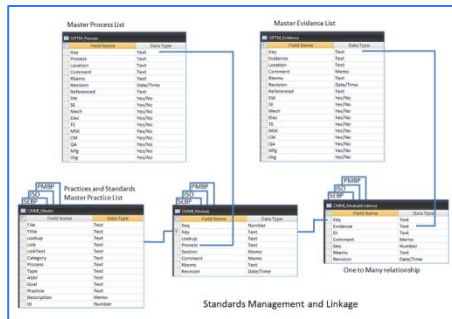
Architecture Rationale

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- **Web-based architecture**
 - Always accessible across the local and enterprise network
 - Allows effective engagement of multiple users and roles at the same time
 - Allows the use of enterprise user authentication via Web Single Sign-On
 - Simplifies the configuration control of the software as well as the ability to easily and quickly deploy changes to all users simultaneously
- **IIS was selected as the web service since this is an enterprise standard and is resident on all Boeing Web servers**
- **ColdFusion was selected for server-side processing. Boeing maintains enterprise licenses and this has been effectively used for many enterprise tools**
- **MS Access is used to support the database functions.**
 - MS Access has recognized limitations when used in a high traffic multi-user environment; however the simplicity of MS Access greatly facilitates the development process.
 - The tool uses the database primarily for “table-space” to store the information used for the server-side processing and Standard Query Language (SQL) queries

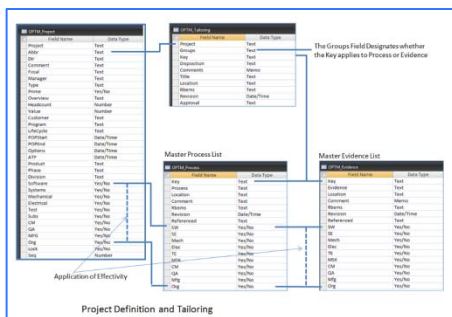
Database Schema

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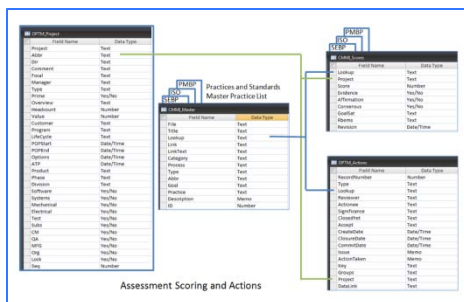
Standards Management and Linkage

- Relates Standards to specific Boeing Processes throughout the model



Project Definition and Tailoring

- Deployment of Company Standards by each Project are documented



Assessment Scoring and Actions

- Evaluations of each process area roll up to a consolidated view

Primary Functions and Roles

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■ Primary Functions

- Site Functional Process Management
- Project Process Tailoring and Evidence Gathering
- Assessment Management and Execution

■ Roles

- Administrator
- Site/Standard Process Focal
- Project Process Focal
- Appraisal Team Lead
- Appraisal Team Member

OPTM – A Robust Tool For Process Compliance

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Organizational Process Traceability Manager (OPTM)



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Agenda

- Application Structure

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CMMI Query Page

Query Parameters		Reports	
CMMI Category	<input type="text"/>	<input checked="" type="radio"/> Compliance Worksheet	
Process Area	<input type="text"/>	<input type="radio"/> Actions, Notes and Findings	
Practice Type	<input type="text"/>	<input type="radio"/> Assessment Findings Counts	
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<input type="checkbox"/> Display Closed Notes on Worksheet		<input type="radio"/> Project Data Sheets	
<input type="button" value="Submit"/> <input type="button" value="Reset"/>	Standard <input type="text" value="CMMI"/>	<input type="radio"/> Project Compliance Data Report	
Support Links			Process Evidence
CMMI-DEV-v1.3.doc		Standards Data Entry and Editing	<input type="radio"/>
OPTM Change Log		Project Data Entry and Editing	<input type="radio"/>
OPTM Users Guide			
OPTM Training for Projects			
OPAL			

User: Forrest W

Access: A - Administration

Project ID:

[Access List](#)

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Home—Query Page, the Starting Point

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CMMI Query Page

Query Parameters

CMMI Category
Process Area
Practice Type
Practice
Project: SM&DS-ORG
 Suppress Notes
 Display Closed Notes on Worksheet
Submit Reset
Standard: CMMI

Support Links

- [CMMI-DEV-v1.3.doc](#)
- [OPTM Change Log](#)
- [OPTM Users Guide](#)
- [OPTM Training for Projects](#)
- [OPAL](#)

Reports

- Compliance Worksheet
- Actions, Notes and Findings
- Assessment Findings Counts
- Project and Division Appraisal Metrics
- Project Population Metrics
- Appraisal Team Consensus Report
- Project Data Sheets
- Project Compliance Data Report

Standards Data Entry and Editing
Project Data Entry and Editing

User Information

User: Callicut, Forrest W Access: A - Administration Project ID: [Access List](#)

Select Process Area Focus

View Individual Project and Notes

Move between different Standards

Supplemental Information

Reports for all users

Define Process Model and Project Deployment

A "Submit" button on the left center of the Query page will take the user to the destination selected on the Right, with the parameters selected on the Left

Access Permissions

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Access Permissions Supported

- Administration – Provides ability to access and manage all tool functions
- CMMI Approval – Provides functional rights to approve project tailoring and evidence
- Note – Can view and edit findings and notes
- Project Write – Provides the ability to edit project information. The specific projects are selected via a drop down menu
- Read Only – Can see the process/evidence information in the tool but cannot make changes
- Scores Read Only – Can see the scoring but cannot make changes
- Scores Write – Can update and record scores

Aligning Company Processes to Model

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1) CMMI Process Model Captured for each Practice

CMMI Worksheet

Previous Next Back To Query Page 398 of 453 go

Category	Support	
Process Area	MA	Measurement and Analysis The purpose of Measurement and Analysis (MA) is to develop and sustain a measurement capability used to support management information needs.
Specific Goal	1	Align Measurement and Analysis Activities Measurement objectives and activities are aligned with identified information needs and objectives.
Specific Practice	1.3	Specify Data Collection and Storage Procedures Specify how measurement data are obtained and stored.

Item	Baseline Process	Standard Evidence	New

2) Company Processes Added to Form Process Baseline

3) Company Process Info Entered

4) Company Process Replicated Across Practices As Needed

CMMI Worksheet

Previous Next Back To Query Page 398 of 453 go

Category	Support	
Process Area	MA	Measurement and Analysis The purpose of Measurement and Analysis (MA) is to develop and sustain a measurement capability used to support management information needs.
Specific Goal	1	Align Measurement and Analysis Activities Measurement objectives and activities are aligned with identified information needs and objectives.
Specific Practice	1.3	Specify Data Collection and Storage Procedures Specify how measurement data are obtained and stored.

Item	Baseline Process	Standard Evidence	New
1	BPI-3491, Measure and Analyze Program Performance		<input type="button" value="New"/> <input type="button" value="Edit"/> <input type="button" value="Del"/>
2	HSV-PMM-51 Measurement and Analysis Methodology	Measurement and Analysis Plan	<input type="button" value="New"/> <input type="button" value="Edit"/> <input type="button" value="Del"/>
	HSV-OPM-03.3 Organizational Measurement Repository Procedure	Project Measurement Repository	<input type="button" value="New"/> <input type="button" value="Edit"/> <input type="button" value="Del"/>

Process Detail Editor

Key: 500707-26-47-1 Last Modified by BEMS 287059 on 09/07/12

Process Title and Link: HSV-PMM-51 Measurement and Analysis Methodology <https://ppds.web.boeing.com/hav/pmm/hav-pmm-51.pdf>

Comment Field

Effectivity: Software, Systems, Mechanical, Electrical, Test and Eval, Subcontract, CM, Quality Assurance, Manufacturing, Organizational

Save Back

58 Reference(s)

Item	Baseline Process	Standard Evidence
001	CAN_0202_0P02	Monitor and Control the Process
002	CAN_0202_0P02	Monitor Status with Higher Level Management
003	CAN_0202_0P02	Collect Investment Information
004	CAN_0202_0P02	Monitor Status with Higher Level Management
005	CAN_0202_0P02	Collect Investment Information
006	CAN_0202_0P02	Monitor Status with Higher Level Management
007	CAN_0202_0P02	Collect Investment Information
008	CAN_0202_0P02	Monitor Status with Higher Level Management
009	CAN_0202_0P02	Collect Investment Information
010	CAN_0202_0P02	Monitor Status with Higher Level Management
011	CAN_0202_0P02	Collect Investment Information
012	CAN_0202_0P02	Monitor Status with Higher Level Management
013	CAN_0202_0P02	Collect Investment Information
014	CAN_0202_0P02	Monitor Status with Higher Level Management
015	CAN_0202_0P02	Collect Investment Information
016	CAN_0202_0P02	Monitor Status with Higher Level Management
017	CAN_0202_0P02	Collect Investment Information
018	CAN_0202_0P02	Monitor Status with Higher Level Management
019	CAN_0202_0P02	Collect Investment Information
020	CAN_0202_0P02	Monitor Status with Higher Level Management
021	CAN_0202_0P02	Collect Investment Information
022	CAN_0202_0P02	Monitor Status with Higher Level Management
023	CAN_0202_0P02	Collect Investment Information
024	CAN_0202_0P02	Monitor Status with Higher Level Management
025	CAN_0202_0P02	Collect Investment Information
026	CAN_0202_0P02	Monitor Status with Higher Level Management
027	CAN_0202_0P02	Collect Investment Information
028	CAN_0202_0P02	Monitor Status with Higher Level Management
029	CAN_0202_0P02	Collect Investment Information
030	CAN_0202_0P02	Monitor Status with Higher Level Management
031	CAN_0202_0P02	Collect Investment Information
032	CAN_0202_0P02	Monitor Status with Higher Level Management
033	CAN_0202_0P02	Collect Investment Information
034	CAN_0202_0P02	Monitor Status with Higher Level Management
035	CAN_0202_0P02	Collect Investment Information
036	CAN_0202_0P02	Monitor Status with Higher Level Management
037	CAN_0202_0P02	Collect Investment Information
038	CAN_0202_0P02	Monitor Status with Higher Level Management
039	CAN_0202_0P02	Collect Investment Information
040	CAN_0202_0P02	Monitor Status with Higher Level Management
041	CAN_0202_0P02	Collect Investment Information
042	CAN_0202_0P02	Monitor Status with Higher Level Management
043	CAN_0202_0P02	Collect Investment Information
044	CAN_0202_0P02	Monitor Status with Higher Level Management
045	CAN_0202_0P02	Collect Investment Information
046	CAN_0202_0P02	Monitor Status with Higher Level Management
047	CAN_0202_0P02	Collect Investment Information
048	CAN_0202_0P02	Monitor Status with Higher Level Management
049	CAN_0202_0P02	Collect Investment Information
050	CAN_0202_0P02	Monitor Status with Higher Level Management
051	CAN_0202_0P02	Collect Investment Information
052	CAN_0202_0P02	Monitor Status with Higher Level Management
053	CAN_0202_0P02	Collect Investment Information
054	CAN_0202_0P02	Monitor Status with Higher Level Management
055	CAN_0202_0P02	Collect Investment Information
056	CAN_0202_0P02	Monitor Status with Higher Level Management
057	CAN_0202_0P02	Collect Investment Information
058	CAN_0202_0P02	Monitor Status with Higher Level Management

2a) Add New Process

Process Data Entry and Editing

Search Key Word for Table Summary Generate Excel Report

Process	Link	Comment	SW	SE	ME	EE	TE	MSK	CM	QA	Mfg	Org
CMS-350, Configuration Control - Data Quality Ass.	https://ppds.web.boeing.com/ppds/bsm/cms-350/		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CMS-260, Subcontract Data Management	https://ppds.web.boeing.com/ppds/bsm/cms-260/		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PRO-2602, Data Management Procedure	http://ppdsplus.boeing.com/hsu/mgm/		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HSV-MPM-33.07, HSV-EFACS Commodity Code	https://ppds.web.boeing.com/hsu/mgm/	Don't understand why this is on S...	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BCS-SM-01.02, Purchase Contract and Agree...	http://ppds.web.boeing.com/mg/9510/		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BCS-SM-03.07, Purchase Contract Negotiation	http://ppdsplus.boeing.com/hsu/mgm/		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BCS-SM-02.05, Supplier/Process Quality Ass...	http://ppdsplus.boeing.com/hsu/mgm/		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PRO-5807, Administration of Supplier Quality M...	http://ppdsplus.boeing.com/hsu/mgm/		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PRO-4892, Quality Assurance Process Scans Cont...	http://ppds.web.boeing.com/ppds/bsm/		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PRO-4892, Quality Assurance Process Scans Cont...	http://ppdsplus.boeing.com/hsu/mgm/		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PRO-4894, Production Control Materials Manag...	http://ppdsplus.boeing.com/hsu/mgm/		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PRO-260, Control of Time and Temperature Sen...	http://ppdsplus.boeing.com/hsu/mgm/		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PRO-4841, Supplier Quality Surveillance of Supp...	http://ppdsplus.boeing.com/hsu/mgm/		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
02-4801-H (P4-18.0), Supplier Acceptance Data I...	http://ppdsplus.boeing.com/hsu/mgm/		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
02-4801-H (P4-18.0), Final Source Surveillance	http://ppdsplus.boeing.com/hsu/mgm/		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PRO-2337, Delegation of Inspection Authority to	http://ppdsplus.boeing.com/hsu/mgm/		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
03-S-SM-03.10, System Integrity Review and App...	http://ppdsplus.boeing.com/hsu/mgm/		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
0050-10400-1 Boeing Estimating System Manual	https://finance.wbg.boeing.com/hsu/mgm/		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
EC-EFPM-700, Parts, Materials and Processes - M...	https://ppds.web.boeing.com/hsu/mgm/		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HSV-MPM-750.05, (03S-EFPM-750.05) Support IP...	http://ppds.web.boeing.com/hsu/mgm/		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BPI-3481, Measure and Analyze Program Perform...	http://ppdsplus.boeing.com/hsu/mgm/		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PRO-PMM-01 Measurement and Analysis Methodo...	https://ppds.web.boeing.com/hsu/mgm/		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
POL-15, Supplier Management	http://ppdsplus.boeing.com/PPS/PDF/	This is on the POL website.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Integrated Performance Manual (IPM) Suppliman...	https://finance.idm.boeing.com/hsu/mgm/		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HSV-PEO-07.10 Heads Analysis and Employee D...	http://ppds.web.boeing.com/hsu/mgm/		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Processes Easily Accessed and Managed

Building a Project Instance

Strategic Missile & Defense Systems

1) Define Project Scope

Project Data Sheet

Project Name Missile Defense Systems Organization

Major Program Area [Dropdown]

IDS Division [Dropdown]

Customer / Agency [Text]

Principle Product [Text]

Project Manager [Text]

Process Focal [Text]

Approx. Headcount 0.0 (EP) Prime Contract?

Approx. Value 0.0 (\$M)

Project Life Cycle [Dropdown]

Current Phase [Text]

Original ATP (m/d/y) [Text]

Current Period of Perf. [Text] to [Text] (mm/dd/yyyy)

Options Through (m/d/y) [Text]

Key Disciplines and Work Content

- Software Engineering
- Systems Engineering
- Mechanical Systems
- Electrical Systems
- Test and Evaluation
- Subcontracts / MSK
- Configuration Management
- Quality Assurance
- Manufacturing

Comments [Text Area]

Project data has not been CMMI Lead Approved

4) Project data tied to each Process Area

CMMI Worksheet Page 1 of 21

Category	Support	
Process Area	MA Measurement and Analysis	The purpose of Measurement and Analysis (MA) is to develop and sustain a measurement capability used to support management information needs.
Specific Goal	1 Align Measurement and Analysis Activities	Measurement objectives and activities are aligned with identified information needs and objectives.
Specific Practice	1.1 Establish Measurement Objectives	Establish and maintain measurement objectives derived from identified information needs and objectives.

Item	Baseline Process	Standard Evidence	Item	Project Evidence
1	BPI-3481, Measure and Analyze Program Performance	BDS Performance Dashboard SMDS Engineering Balanced Scorecard	1	AsWritten: 4/8/11 DDC, 5/24/11 MCR See the PM DPP matrix for ISS Huntsville tailoring of BPI-3481 Measure and Analyze Program Performance See the C&DH DPP for C&DH tailoring of BPI-3481 Measure and Analyze Program Performance
2	HSV-PMMA-51 Measurement and Analysis Methodology	Measurement Selection Matrix Measurement and Analysis Plan	2	AsWritten: 5/12/11 DDC, 5/25/11 MCR, 8/11/11 MCR See the PM DPP matrix for ISS Huntsville evidence of HSV-PMMA-51 Measurement and Analysis Procedure See the C&DH DPP Matrix for C&DH tailoring: HSV-PMMA-51 Measurement and Analysis Procedure

Process Tailoring

Search Key Word for Table Summary

Process	Disposition	Approval
BPI-08-20001.01 Systems Engineering Management Plan (SEMP) Template Verion 3 (298-09-01175)	Tailor/Out	
PRO-4041, Program Management	AsWritten	Approved
PRO-4041 Program Management	AsWritten	Approved
BPI-705, Manage and Perform Internal Audit (IA)	Tailored	
CMS-350, Configuration Control - Change Management	Equivalent	
CMS-370, Reviews, Audits, and Product Certification	Tailored	
HSV-OPMA-05 Perform Organizational Process Improvement	AsWritten	Approved
HSV-OPMA-05 Organizational Process Improvement	AsWritten	Approved
HSV-OPMA-05 Organizational Process Improvement	AsWritten	Approved
BPI-3489, Manage Configurations and Data	Tailored	
BPI-3401, Measure and Analyze Program Performance	AsWritten	Approved
HSV-PMMA-51 Measurement and Analysis Methodology	AsWritten	Approved
D050-10440-1, System Engineering Process Manual	Tailored	
D050-10571, Integrated Planning Handbook	AsWritten	Approved
PRO-5504, Program Execution Plan and Team Execution Plan Process	AsWritten	Approved
BPI-3489, Plan Program	Tailored	
BPI-3402, Monitor and Control Program	Tailored	
BPI-3485, Contact and Communicate with Customer	AsWritten	Approved

2) Identify Process Usage

Project Tailoring

Use As-Written Division Equivalent Tailored (modified) Replaced

Elaboration If an item is tailored to "Use As-Written", it will receive automatic approval.

Justification 5/24/11 DDC, 5/24/11 MCR See the PM DPP matrix for ISS Huntsville evidence of http://www-hsv-02.se.nos.boeing.com/iss/hsv/Process/ISS Huntsville

Summary of Deviations

Rationale For Replacement

Project Document Title Monitor_and_Control_Program

Document Location http://www-hsv-02.se.nos.boeing.com/iss/hsv/Process/ISS Huntsville Processes -

Tailored Item is Not Approved

2a) Provide Tailoring Info

3) Attach Evidence Artifacts

Evidence Tailoring

Search Key Word for Table Summary

Evidence	Disposition	Approval
Trade Study Plan	AsWritten	Approved
BPI-07-10009 Software User Documentation Method (208-08-014)	AsWritten	Approved
BPI-07-10014 Software Configuration Management Method	AsWritten	Approved
Method of integration reviews and technical interchanges	AsWritten	Approved
BPI-07-10007 Software Integration and Integration Testing Method	AsWritten	Approved
Project software size		
Software effort and development schedule		
Project software risk		
BPI-07-10005 Software Planning Method	AsWritten	Approved
BPI-07-10006 Software Configuration Management Method	AsWritten	Approved
BPI-07-10018 Software Quality Engineering Support of Software Qualification Method		
BPI-07-10019 Software Quality Engineering Support of Milestone Review Method		
BPI-07-10020 Software Quality Engineering Monitor Supplier SW Quality Method		
BPI-07-10021 Software Quality Engineering Non-compliance Handling Method		

3a) Evidence Info

Project Tailoring

Project Evidence Title [Text]

Project Evidence Location [Text]

Project Evidence [Text]

Notes and Comments [Text Area]

Exists Does not exist Included elsewhere

Appraisal Readiness Review Support

Strategic Missile & Defense Systems

Readiness Review

- Partition work into Mini-Teams
- Fast Pass, check links only
 - Write Data Request Notes
- Evaluate Evidence sufficiency
 - Write Data Request Notes
 - Create Evidence Notes
- In Briefs
 - Create In Brief Notes

1) Review Process/Evidence per Practice

CMMI Worksheet

Page 1 of 21

Category	Support	
Process Area	MA	Measurement and Analysis The purpose of Measurement and Analysis (MA) is to develop and sustain a measurement capability used to support management information needs.
Specific Goal	1	Align Measurement and Analysis Activities Measurement objectives and activities are aligned with identified information needs and objectives.
Specific Practice	1.1	Establish Measurement Objectives Establish and maintain measurement objectives derived from identified information needs and objectives.

Item	Baseline Process	Standard Evidence	New
1	BPI-3491, Measure and Analyze Program Performance	BDS Performance Dashboard SM&DS Engineering Balanced Scorecard	<input type="button" value="Edit"/> <input type="button" value="Del"/>
2	HSV-PMM-51 Measurement and Analysis Methodology	Measurement Selection Matrix Measurement and Analysis Plan	<input type="button" value="Edit"/> <input type="button" value="Del"/>

SM&DS-ORG	Process Tailoring	Project Evidence	Score
1	AsWritten:	Same as division evidence SM&DS Engineering Scorecard	<input type="checkbox"/> Consensus <input type="radio"/> FI <input type="radio"/> LI <input type="radio"/> PI <input type="radio"/> NI <input type="radio"/> NY <input type="checkbox"/> Evi Aff <input type="checkbox"/>
2	AsWritten:	Not Applicable Engineering Process Improvement Plan EPIP contains high level description of process performance metrics that will be monitored throughout the year.	

Page 1 of 21

Project Notes | Assessor Notes

In-Brief Notes | Interview Notes | Evidence Notes | Data Request | Assessment Finding

Don't forget to "SUBMIT" after the Item is created or modified.

3) Query Notes Status

Action Items

Note: If a single record number is entered the other filters will be cleared.

Action Item Record Number:

Standard: CMMI

Originator:

Actionee:

Project:

Process Area:

Action Type:

Data Item Type:

Open Actions
 Closed Actions
 Data Accepted
 Data Not Accepted

Reset Data Accepted

"Opened Dates" from through . Format is mm/dd/yy.

"Closed Dates" from through .

Note: If a date is entered into either of the "Closed Dates" fields, you will only get Closed Actions.

Submit

Back To Main Query | Action Statistics | Clear Form

Filters by: Standard, Originator, Actionee, Project, Action Type

2) Write Note

Reviewer:

Actionee:

Data Request:

Action Number:

Create Date:

Project: SM&DS-ORG

Submit | Cancel

Data Needed:

Data Provided:

3a) List of Notes

Action Items

Reviewer:

Action Number:

Project:

Accept

Data Request:

Create Date:

Data Needed:

Data Provided:

Appraisal SCAMPI Reporting

Strategic Missile & Defense Systems

Conduct SCAMPI A

- Interviews
 - Create Interview Notes
- Evaluate Evidence
 - Write Data Request Notes
 - Create Evidence Notes
- Mini-Team Evaluation
 - Create Assessor or Finding Notes
 - Develop Characterization
- Full Team Evaluation
 - Create Assessor or Finding Notes
 - Develop Consensus
 - Determine Goal Satisfaction, then Process Area Satisfaction
 - Maturity Level Result

Monitor % Evidence/Affirmation per Process Area

Project and Division Appraisal Metrics

Color code: Evidence (0-50% red, 50-80% yellow, 80-100% green)
Affirmation (0-30% red, 30-50% yellow, 50-100% green)

[Back To Main Query](#)

Process Area	No.	SMS		SM&DS-ORG		ISS Payloads		ISS		GMD Program		GMD GFC-E		Total		
		E	A	E	A	E	A	E	A	E	A	E	A	E	A	
Requirements Management	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Planning	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Monitoring and Control	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Supplier Agreement Management	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Measurement and Analysis	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Monitor % Scored/Consensus per Process Area

% Completion Status (Scored, Consensus)
Color code: (0-50% red, 50-80% yellow, 80-100% green)

[Back To Main Query](#)

Process Area	No.	SMS		SM&DS-ORG		ISS Payloads		ISS		GMD Program		GMD GFC-E		Total	
		scored	consen	scored	consen	scored	consen	scored	consen	scored	consen	scored	consen	scored	consen
Requirements Management	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Planning	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Monitoring and Control	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Supplier Agreement Management	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Monitor Characterization/Satisfaction per Process Area

Process Area: Project Planning

[Back To Main Query](#)

Goal	Practice	Project	Evidence Types	Supplemental Data Collected	Interview Notes	Inst Char	Findings	OUI	OUI Preliminary Findings	Goal Rating	Goal Level Findings
	SP-1	SM&DS-ORG	..	0	0		0	<input type="radio"/> FI <input type="radio"/> LI <input type="radio"/> PI <input type="radio"/> NI <input type="radio"/> NY	<input type="radio"/> Satisfied <input type="radio"/> Not Satisfied	0	<input type="button" value="new"/>
	SP-2	SM&DS-ORG	..	0	0		0	<input type="radio"/> FI <input type="radio"/> LI <input type="radio"/> PI <input type="radio"/> NI <input type="radio"/> NY	<input type="radio"/> Satisfied <input type="radio"/> Not Satisfied	0	<input type="button" value="new"/>
SG 1	SP-3	SM&DS-ORG	..	0	0		0	<input type="radio"/> FI <input type="radio"/> LI <input type="radio"/> PI <input type="radio"/> NI <input type="radio"/> NY	<input type="radio"/> Satisfied <input type="radio"/> Not Satisfied	0	<input type="button" value="new"/>
	SP-4	SM&DS-ORG	..	0	0		0	<input type="radio"/> FI <input type="radio"/> LI <input type="radio"/> PI <input type="radio"/> NI <input type="radio"/> NY	<input type="radio"/> Satisfied <input type="radio"/> Not Satisfied	0	<input type="button" value="new"/>

OPTM – A Robust Tool For Process Compliance

Strategic Missile & Defense Systems



Organizational Process Traceability Manager (OPTM)



OPTM Version 5

... INVENTING THE FUTURE

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[Huntsville Host - SM&DS Processes and Procedures](#)

Agenda

- Practicalities

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CMMI Query Page

Query Parameters		Reports	
CMMI Category	▼	<input checked="" type="radio"/> Compliance Worksheet	
Process Area	▼	<input type="radio"/> Actions, Notes and Findings	
Practice Type	▼	<input type="radio"/> Assessment Findings Counts	
Practice	▼	<input type="radio"/> Project and Division Appraisal Metrics	
Project	▼	<input type="radio"/> Project Population Metrics	
<input checked="" type="checkbox"/> Suppress Notes		<input type="radio"/> Appraisal Team Consensus Report	
<input type="checkbox"/> Display Closed Notes on Worksheet		<input type="radio"/> Project Data Sheets	
<input type="button" value="Submit"/> <input type="button" value="Reset"/>	Standard CMMI ▼	<input type="radio"/> Project Compliance Data Report	
Support Links			Process Evidence
CMMI-DEV-v1.3.doc		Standards Data Entry and Editing	<input type="radio"/>
OPTM Change Log		Project Data Entry and Editing	<input type="radio"/>
OPTM Users Guide			
OPTM Training for Projects			
OPAL			

User: Forrest W

Access: A - Administration

Project ID:

[Access List](#)

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Project View of OPTM – GMD Program

Strategic Missile & Defense Systems



■ SCAMPI Preparation

- 130 Processes identified – 91.5% As Written (Enterprise Standard)
- 311 Evidence Items identified – 98% As Written
- Project Process Focal
 - Controls effort for initial project, and for subsequent appraisals
 - Decides who has write access
 - Involved with input of all artifacts
 - Retains knowledge of what is in tool in every process area
 - Benefits answering data request
 - Project Subject Matter Experts (SMEs) input artifacts
 - when interviewed they have knowledge of how artifacts correlate with practice
- OPTM provides quick access to reference material (CMMI Model, Boeing Enterprise Processes) as projects input related artifacts
- Maintenance of Project data between Appraisals
 - As the site common processes are updated, the process focal reviews the changes for possible impacts and obtains assistance when needed from the functional area representatives to update tailoring

Project View of OPTM – GMD Program

Strategic Missile & Defense Systems



■ SCAMPI Conduct

- Data Requests routed to Project Process Focal
 - Reached out to other project resources to work as needed
- 125 Data Requests Notes recorded at last appraisal

■ Desired Enhancements

- Keeping evidence artifacts updated efficiently
 - And identify which artifacts need updating during appraisal preparations
- Using same tool and artifacts to respond to other audits without the need for additional resources

Project View of OPTM – ISS Program

Strategic Missile & Defense Systems



■ SCAMPI Preparation

- 172 Processes identified
 - 30% As Written (Enterprise Standard)
 - 12% Equivalent Used
 - 51% Tailored
- 373 Evidence Items identified – 77.7% As Written
- Project Process Focal
 - Is a senior engineer with a wide range of engineering development experiences
 - Has administrative support for entering and verifying all data
- Functional Area Representative (SW,HW)
 - Provides process specific knowledge and tailoring concerning their area of expertise
 - Verifies processes that have been tailored and project evidence
- Maintenance of Project data between Appraisals
 - As the site common processes are updated, the process focal reviews the changes for possible impacts

Project View of OPTM – ISS Program

Strategic Missile & Defense Systems



■ SCAMPI Conduct

- Data Requests routed to Project Process Focal
 - Easy to determine data requests content and provide information back to the appraisers
- 115 Data Requests Notes recorded at last appraisal

■ Desired Enhancements

- For maintenance in between appraisals, there isn't a view/screen which allows the engineer to see the applicable site common processes and corresponding program's tailoring
- Data Request acceptance is not clear, requires monitoring to see if it closes or if additional information is needed
- Not an easy way to revalidate past entries from other audits (copy and paste into new project image or keep a paper tally of which process areas have been re-verified)

Site Engineering Function View of OPTM

Strategic Missile & Defense Systems

- **Maintaining Standards and Enterprise Process Consistency**
 - Completeness – Ability to determine
 - Replicating across multiple Practices – Be Careful
 - Peer Review if significant changes occur
- **Managing Preparations for Appraisal**
 - Adding Projects – Easy and Straightforward
 - Reuse of Previous Project Mappings is a great starting point
 - Review and Approve any non-“As Written” Project process
 - Reports provide overall status of populating tool with evidence
- **Execution of Readiness Review – thru Appraisal**
 - Single Site Focal for Appraisal Team
 - Data Request Notes are primary means of Communication
 - Configuration Management challenges
- **Desired Enhancements**
 - Need better lifecycle management of Data Requests
 - Overall reports in tool are usually supplemented

Appraisal Team View of OPTM

Strategic Missile & Defense Systems

■ Readiness Review

- Fast Pass, check links only
 - When things are set up properly can “fly” through practices
 - Typical Data Requests are for broken link, access denied, missing/incorrect data provided problems
- Checking Documentation sufficiency
 - Opening Documents can be an issue for particular size, application, and document repository location
 - Some links go directly to relevant content internal to document
 - Typical Data Requests are for wrong or missing document
- Briefings
 - Notes tie directly to practice area
 - Copy/Paste between practice areas possible but not efficient
- Desired Enhancements
 - Team approach to OPTM utilization varies
 - Team members still create own status tracking/reporting tools

Appraisal Team View of OPTM

Strategic Missile & Defense Systems

■ SCAMPI A

- Different Note types aid in keeping overall review and evaluation process organized
- MiniTeam (2) works efficiently by keeping two instances operating: one capturing Notes and Characterization, the other accessing evidence
- Team members have ready access to all characterization data and progress reports
 - Ability to export to excel report data and do additional analysis
- Desired Enhancements
 - Further refinement of note and reporting capabilities for disciplines (e.g. Systems Engineering, Software, Hardware)
 - Need to accommodate different types of CM strategies for the different types of notes



OPTM – A Robust Tool For Process Compliance

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Organizational Process Traceability Manager (OPTM)



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- New Horizons

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<input type="checkbox"/> Display Closed Notes on Worksheet		<input type="radio"/> Project Data Sheets	
<input type="button" value="Submit"/> <input type="button" value="Reset"/>	Standard CMMI ▼	<input type="radio"/> Project Compliance Data Report	
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OPAL			

User: Forrest W

Access: A - Administration

Project ID:

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OPTM – New Horizons

Strategic Missile & Defense Systems

- **Via a Boeing Lean+ 10X initiative in Puget Sound the tool continues to be expanded to Four Standard Views**
 - CMMI (Version 1.3 for Development)
 - ISO (AS9100C)
 - Systems Engineering Best Practice (SEBP Version 5.2)
 - Program Management Best Practice (PMBP 2010)
- **Transition to enterprise standard database (either Oracle or SQL Server)**
- **Enhancements identified during usage are implemented as budget and schedule allow**
 - Improving Project Interfaces
 - Keeping evidence up-to-date
 - Better Readiness Review and Discipline (SE,SW,HW) Support

OPTM Conclusion

Strategic Missile & Defense Systems

- **OPTM's original design grew from a practical understanding of the overall appraisal experience**
- **It has achieved the “right” level of functionality and sustainability to support our CMM/CMMI activities for the past 10 years**
 - Through CMM/CMMI Model Improvements
 - Transitioning from site specific process to enterprise processes
 - Supporting the changing business climate
- **Due to its robustness and continued expansion it will continue to be our tool of choice for future appraisals and audits**

OPTM Authors

Strategic Missile & Defense Systems

■ Primary Authors

- Forrest Callicutt –Appraisal Team Member

forrest.w.callicutt@boeing.com

Phone: (256) 542-6002

- Teresa R. Walker –Process Performance Manager, Leads CMMI efforts at Site

■ Contributors

- Robert Ferguson – Father of OPTM tool
- Cheryl Ray – GMD Project Process focal
- Christy Rainey – ISS Project Process focal

