



NATIONAL SHIPBUILDING RESEARCH PROGRAM ADVANCED SHIPBUILDING ENTERPRISE

Reducing Naval Ship Construction & Repair Costs

National Shipbuilding Research Program

CPC Enhancements
All Panel Project Review Meeting

October 04, 2011

Ingalls Shipbuilding - Electric Boat – Bath Iron Works
Newport News, VA

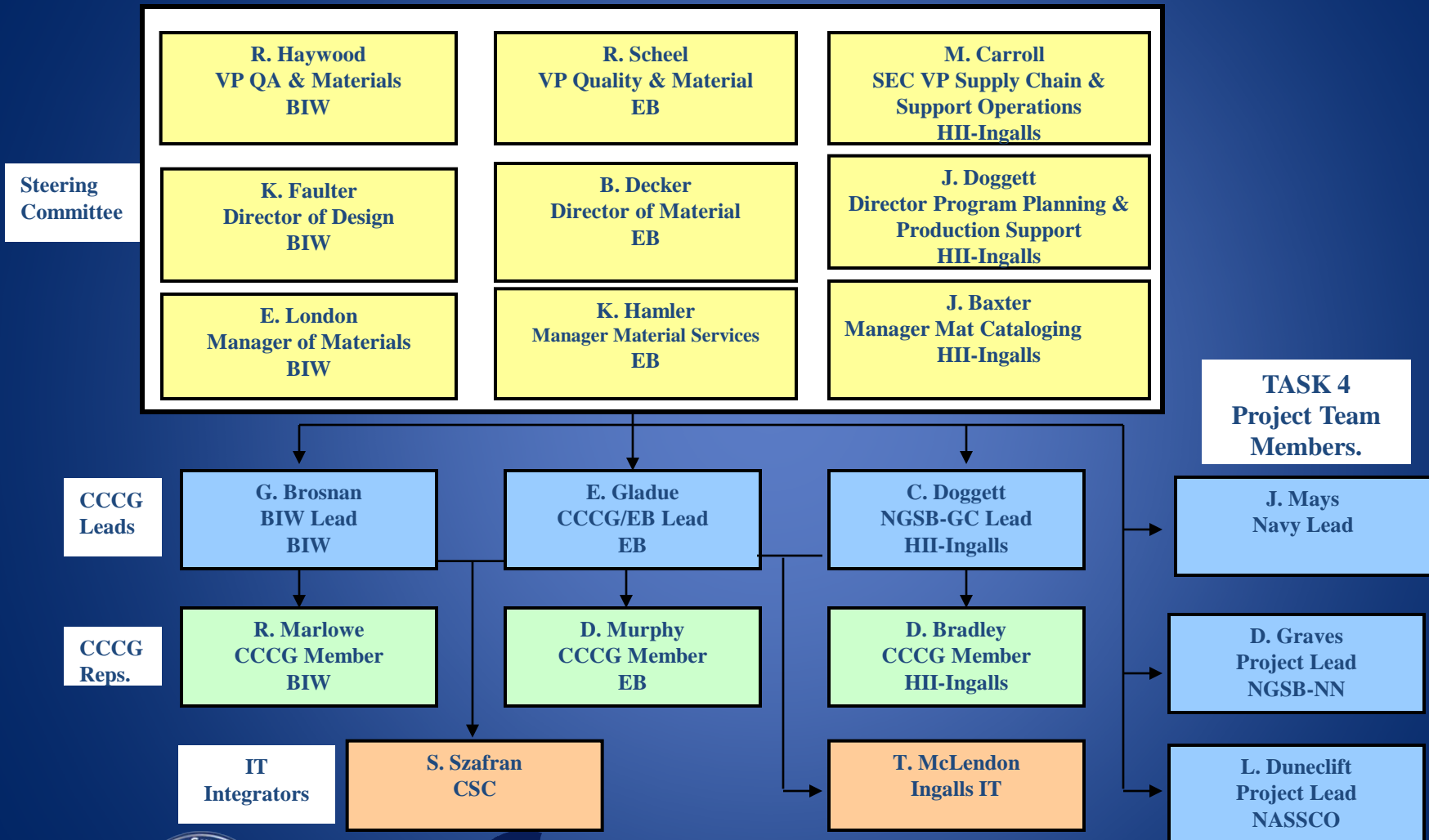


Agenda

- Project Team
- Tasks 1 – 4 Overview
 - Task Baseline
 - Accomplishments
 - Issues
 - Next Steps
- Technology Transfer



Project Team & Management Structure



Task 1 – Network, Software and Application Changes

➤ Implementation Strategy

- Project started with a Kick Off meeting held at BIW on May 18-20
- It is estimated to take 6 – 9 months to upgrade the current Software environment.
- Direction agreed to would be to upgrade the GD environment, “clone” it and send to NGSB-GC for installation.
- NGSB-GC would install and then regression testing of basic functionality and part sharing would take place at both sites.
- Upon successful completion of testing, both sites would turnover to production.

➤ A Detailed Project Plan is being developed

- June – Dec. upgrade the GD Software and send to NGSB-GC
- Jan – Feb install and test.
- March Turnover to Production.



Task 1 – Network, Software and Application

Changes (cont'd)

➤ Task Baseline

- Participants – EB, BIW, NGSB-GC, JDA, CSC, NGIT
- Schedule – May 2010 – March 2011

➤ Accomplishments

- Completed the Design Phase of the upgrade
 - CPC Upgrade Solution Spec. and Data Base Migration Spec. completed and approved by all 3 shipyards
 - Decision to proceed – “Go”
- Completed the Construct Phase
 - Development of the DB migration scripts to update the current CPC DB to the current JDA product release
 - Provided software components to configure and customize the out of the box JDA CSM product to meet the functional requirements for the CPC application
 - Installed and configured the new software at the GD and NG server locations
 - Executed the initial CPC Database Migration process at the GD and NG locations
 - Completed the CSC developed custom functions software supporting the JDA CSM application



Task 1 – Network, Software and Application Changes

(cont'd)

➤ Accomplishments (cont'd)

- Program Reviews Held with PTR & PFR on March 24 and July 18
 - Project Status provided
 - Demonstration of the new CPC Software
 - Participated in Upgrade Team Working Meeting
 - “Bug” status
 - NG S/W installation status
 - Other issues
- Completed the validation phase (Stage) at GD
 - Test Servers stood up
 - Initial CSM software testing complete in development environment
 - Stage environment - 850 tests completed
- Production Turnover completed 5/28-5/30 & 6/4-6/5
- Started the Validation Phase at HII-Ingalls
 - Upgrade S/W was provided and installed on test server
- Completed setup and configuration of the production servers at HII-Ingalls
 - Issued P.O. for Production Server – July 22
 - Received & Installed Servers – Sept. 2



Task 1 – Network, Software and Application Changes

(cont'd)

➤ Issues

- Due to Spin Off of Huntington Ingalls Industries, NG server issues arose
 - HII-Ingalls could not use NG server farm, had to purchase production server which is still not available
 - New DMZ to be set up at Avondale - can no longer use Dallas DMZ
 - MQSeries maintenance not renewed P.O. being negotiated
 - Production turnover targeted for Oct. 30
- Additional impacts of HII spinoff are not anticipated
- GD in production without HII-Ingalls – Part Sharing turned off
 - Shipyards have a demonstrated process to synchronize when HII-Ingalls goes into production
- Tasks 2, 3, 4 are subject to the successful completion of Task 1
 - GD in production allows work to continue



Task 1 – Network, Software and Application Changes

(cont'd)

➤ Next Steps

- Complete the Validation Phase at HII-Ingalls – Oct. 7
- Complete the Part Sharing testing GD/HII-Ingalls – Oct. 20
- Complete setup and configuration of the production servers at HII-Ingalls
 - Classification Schema reduction – Oct. 7
 - CSM User Acceptance Testing – Oct. 14
 - Install Legacy Interfaces – Oct. 14
 - Interface User Acceptance Testing – Oct. 27
 - Complete the CPC Production Turnover Oct. 30



Task 1 – Network, Software and Application Changes (cont'd)

➤ Key Deliverables

- CCCG Revised Procedures and Standards with Task 1 Updates
 - CCCG-1 Objectives, Management Structure and By-laws
 - CCCG-2 Preparation, Format and Maintenance of CCCG Procedures
 - CCCG-3 CPC Configuration Management Procedure
 - CCCG-4 Inter-Shipyard Part Equivalency and Maintenance Procedure
 - CCCG-5 Part and Document Audit Procedure
 - CPC Classification Schema
 - Data Element Dictionary (DED)
 - CPC Data Model Architecture

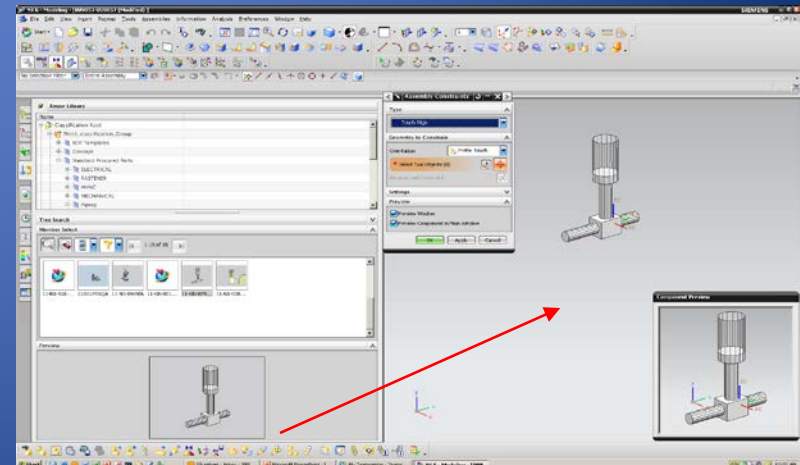
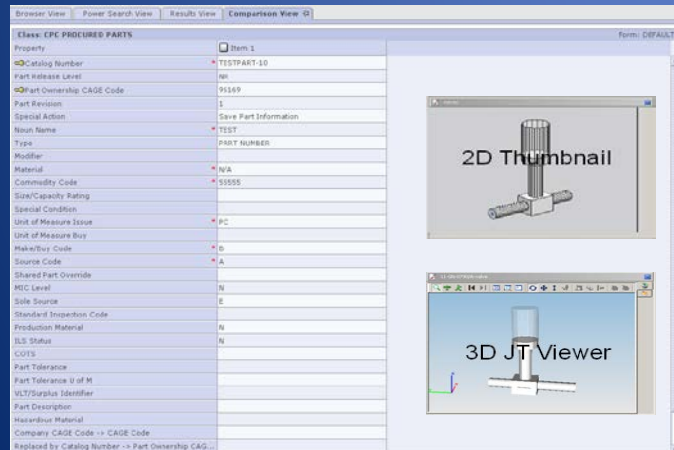


Task 2 – Model Inclusion and Exchange

Current CPC search results

Property	Item 1
Catalog Number	TSTPART-10
Part Release Level	NR
Part Ownership: CAGE Code	91649
Part Revision	1
Special Action	Save Part Information
Item Name	TSTT
Type	PART NUMBER
Modifier	
Material	N/A
Commodity Code	S5555
Size/Capacity Rating	
Special Condition	
Unit of Measure Issue	PC
Unit of Measure Buy	
Make/Buy Code	D
Source Code	A
Shared Part Override	
MIC Level	N
Sole Source	E
Standard Inspection Code	
Production Material	N
ILS Status	N
COIS	
Part Tolerance	
Part Tolerance U of M	
VLT/Suplus Identifier	
Part Description	
Hazardous Material	
Company CAGE Code -> CAGE Code	
Replaced by Catalog Number -> Part Ownership CAG...	

The addition of models to CPC will support more efficient part searches and promote the re-use of already established cross platform designs .
CPC search results with 2D and 3D Drag and drop into CAD session



Task 2 – Model Inclusion and Exchange (cont'd)

➤ Task Baseline

- Participants – EB, BIW, NGSB-GC, JDA, Siemens, CSC, NGIT
- Dec. 2010 – Sept 2011
- The requirement is to define how the CPC participating Shipyards can share and reuse 2D/3D CAD models

➤ Accomplishments

- EB able to leverage information from two other activities
 - Virginia Data Migration & Common Missile Compartment
- Demonstration Provided to PTR & PFR at the Program Review on March 24
- Coordinated Task 2 working meeting with our Team Meeting & Program Review on July 18-20
 - Invited HII-NNS and NASSCO to participate

➤ Issues

- The need to focus on Task 1 results in a late start
- Limited IT budget for implementation in the event of technical feasibility and positive business case
- P.O. to JDA delayed by Legal T & C review

➤ Next Steps

- Conduct Task 2 working meetings
- Issue P.O. to JDA
- Submit an implementation project in the 2012 IT Plan



Task 3 – Functionality Enhancements

- We have three sources of enhancement requirement requests
 - **CPC Navy Pilot**
 - *More National Stock Numbers (NSN) in CPC*
 - *Include shipyard inventory levels for the part numbers*
 - *Include Carrier part numbers*
 - **CGNx/CGx Material Standardization and Procurement Working Group**
 - *One common set of procurement notes*
 - *Cross-Contract Material Use and Part Identification (specification 'effective' dates)*
 - *Consolidated procurements*
 - **Participating Shipyards**
 - *Build part and document creation templates*
 - *Creating an electronic part request capability*
 - *Increase the level of Integrated Logistics Support Data*
 - *The ability to add large amounts of text data to an attribute*
 - *The ability to search within attachments*

These enhancements will be managed with the existing Central Configuration Control Group Change Request Process



Task 3 – Functionality Enhancements (cont'd)

➤ Task Baseline

- Participants – EB, BIW, NGSB-GC, CSC, NGIT
- Schedule – Sept. 2010 – March 2012

➤ Accomplishments

- Completed the review and prioritization of 21 enhancements
- Able to work in conjunction with Task 1
- 2 enhancements scheduled for production deployment with the upgrade
 - Reduced Classification Schema, Single Screen
- Coordinated Task 3 working meeting with our Team Meeting & Program Review on July 18-20
- Agreed to keep HII-NNS and NASSCO in the review process



Task 3 – Functionality Enhancements (cont'd)

- 2 additional enhancements have received company approval and funding for implementation at EB and BIW
 - Part Navigator – will enable users to filter through the available parts - and their attributes - to find the relevant ones (google-like)
 - ABPP will provide a Wizard that will guide the user through the Part and Document Creation process; Provide an integrated New Part Request and approval process
 - These are environment specific and will not impact HII-NNS & NASSCO reviews
- 3 additional enhancements have been submitted for IT approval and funding
 - Inactive Part Release Level, MSDS mapping class, Shock Data
 - HII-Ingalls has submitted a 2012 IT project for Part Navigator and ABPP

➤ Issues

- Competing priorities with Key CPC resources

➤ Next Steps

- Target next enhancement and initiate CCCG CR
 - Re-prioritize enhancements based on available implementation budget

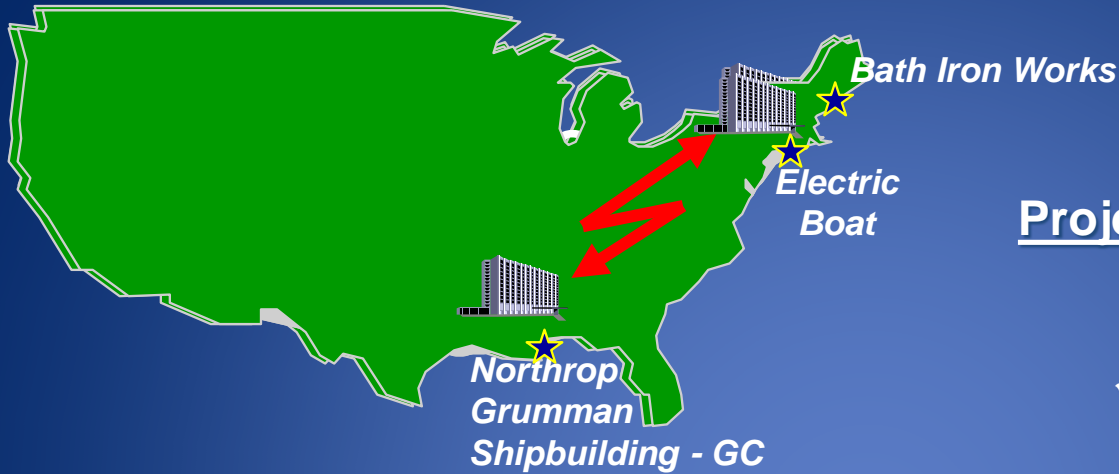


Task 3 – Functionality Enhancements (cont'd)

	Enhancement	Status
1	Schema Reduction	Completed during Upgrade
2	Single Screen	Completed during Upgrade
3	Inactive Part Release Level	In for approval/funding
4	MSDS mapping Class	In for approval/funding
5	Shock Data	In for approval/funding
6	Improve Search Capability (Google Type Search)-Part Nav.	Approved/Funded
7	Electronic Part Request-ABPP	Approved/Funded
8	Automate Adds/Changes-ABPP	Approved/Funded
9	Ability to perform Edit->Replace and Edit->Replace All operations	
10	Common Procurement Class and Attributes	
11	Common Procurement Notes	
12	Common Terminology	
13	Document Categories	
14	Document Types	
15	ILS Data	
16	Improve Notification/Distr of CPC Part Changes (Alerts)	
17	Increase NSNs in CPC	
18	Linking Capability	
19	Restricted and/or required attributes	
20	User Friendly Error Messages	
21	Link DED sheets to CPC attribute	

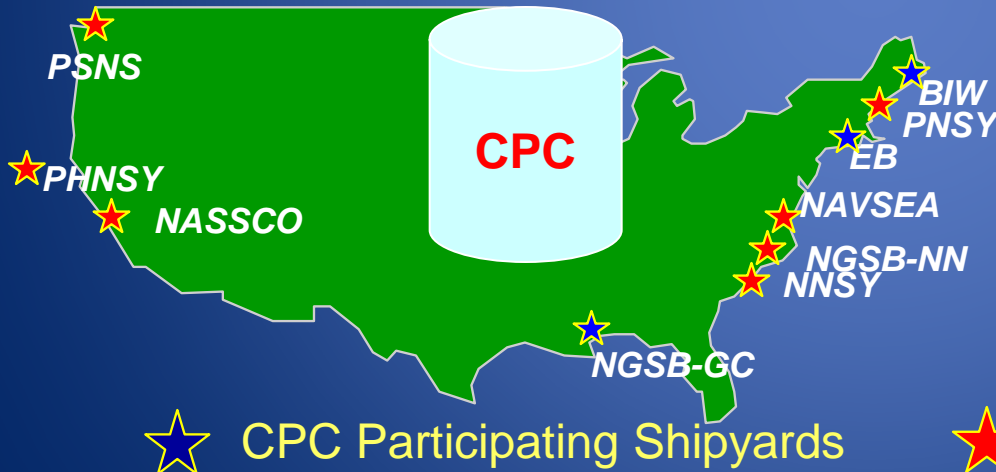


Task 4 – Additional Participation



Project Steps For A “Go / No Go” Recommendation

- ✓ Current State
 - Data
 - Systems
- ✓ Lessons Learned
- ✓ Best Practices
- ✓ Desired Future State
- ✓ Develop system design and interface requirements
- ✓ Business Case
- ✓ Three final reports:
 - ✓ NGSB-NN, NASSCO, Navy



Task 4 – Additional Participation (cont'd)

➤ Task Baseline

- Participants – EB, BIW, NGSB-GC, NGSB-NN, NASSCO, PNSY
- Schedule – March 2011 – March 2012

➤ Accomplishments

- Issued Inter Company Service Agreement (ISA) to NASSCO
- Issued HII-Ingalls contract / P.O. to HII-NNS
- Established Project Plans with NASSCO & HII-NNS
- Initiated the first Data analysis effort on the DED
- NSRP identified the Navy Shipyard lead – Jim Mays
- Held a working meeting with NASSCO at the SDMT Panel meeting on Sept. 21
- Coordinate Task 4 working meeting with our Team Meeting & Program Review on July 18-20

➤ Issues

- Both NASSCO & HII-NNS feel the schedule is tight
 - Current ECD is Dec. 31 – Change to Jan. or Feb. is possible
- HII impact to this task was unknown but appears to be a non-issue

➤ Next Steps

- Schedule next working meetings with HII-NNS and NASSCO



Technology Transfer

- Part Standardization Management Committee (PSMC)
 - Requested permission to perform a CPC Case Study
 - NSRP permission granted
 - Team review of first draft to be completed Sept 14
 - CPC Executive Steering Committee to be engaged for final approval
- Project update and status provided at the SDMT Panel meeting on Sept. 21
- Request from a student at the Naval Postgraduate School conducting thesis research on how to reduce ship lifecycle costs via collaborative tools.
 - NSRP Program Office to advise



Technology Transfer (cont'd)

➤ NSRP DAY @ NAVSEA

- *At the request of shipbuilding PEO staffs and the NAVSEA NSRP Program Manager*
 - *NAVSEA headquarters at the Washington DC Navy Yard on 22 September 2011*
 - *Dedicated session for familiarizing Navy shipbuilding program managers and their staffs with past and ongoing R&D efforts through NSRP*
 - *Was held in the large atrium in the NAVSEA HQ building that was accessible to the target audience*
 - *Plan was to showcase selected NSRP projects with a combination of displays staffed by project-knowledgeable people along with short presentations (~15 min plus Q&A) for a number of those projects being displayed*
 - *Common Parts Catalog was selected*
 - *Ed Gladue and Deb Murphy attended*
- **High-Level Navy Interest** - *The event attended by NAVSEA's Executive Director and the PEO/Program staffs. ASN RDA Sean Stackley attended and provided kick-off remarks.*



Wrap Up / Questions?

