



**Product Design & Material Technologies
Major Initiative Team Lead (MITL)
3rd Quarter '08 Report**

**Barry Espeseth, PDMT MITL
John Walks, PDMT Asst MITL
September 3, 2008**



MITL Objectives actively support the NSRP ASE Strategic Investment Plan

- **Ensure PDMT Projects are on schedule and deliverables support the Initiative's goals**
- **Keep the ECB informed on the PDMT activities and project status**
- **Develop and execute a plan to facilitate the development of meaningful projects for the upcoming RA that will produce identifiable ROI for the shipyards and our customers**
- **Coordinate interactions with our customers to ensure project cost savings/avoidance's are identified and tracked**
- **Update the SIP (as required) to reflect benchmarking and issued project deliverables data**
- **Act as conduit to inform shipbuilders on NSRP initiatives**

FY07/08 PDMT Projects Status



1. Improved Affordability for Composite Structures (Pultrusions I)

- **Participants:** NGSS (Lead), KaZak Composites, Naval Surface Warfare Center
- **Objective:** To develop and demonstrate a low cost joining capability for flat pultruded composite panels
- **PTR:** B. Espeseth
- **Accomplishments to date:**
 - **Designed efficient joint design**
 - **Tested joint in small & large panels and found with voids**
 - **Designed and successfully tested new methodology & adhesive for joining panels in production size (10' wide) panels**
- **Next Steps:** send samples to NSWC for testing
- **Status:** 6 month “no-cost” extension approved to 3/09



FY07/08 PDMT Projects Status (continued)



2. Low Cost Protruded Composites (Pultrusions II)

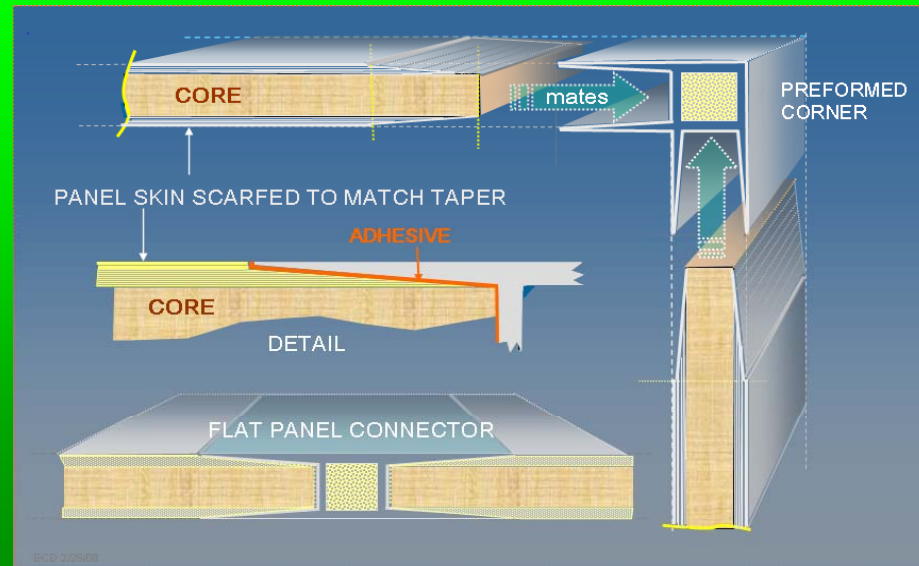
- **Participants:** NGSS (Lead), KaZak Composites, Material Sciences Corp
- **Objective:** To develop and demonstrate a low cost joining capability for angled pultruded composite panels.
- **PTR:** B. Espeseth
- **Status:**
 - Project Mgmt and Tech Transfer Plans issued and approved
 - Joint Design Team meetings have progressed to schedule.

2.

New Proposal for Low Cost Standardized Panel Connectors

Project would design, manufacture and test four standard joint connectors:

- Flat
- Corner
- "T"
- Cruciform



FY07/08 PDMT Projects Status (continued)



3. Design for Producibility for Mid-Tiered Shipyards

- **Participants:** Bollinger, Todd, Atlantic Marine, Hepinstall Consulting, Victoria Dlugokecki, P. E.
- **Objectives:**
 - Deliver a comprehensive DfP guide
 - Reduce design lead times and costs
 - Identify and utilize DfP cost reduction principles
- **PTR:** John Walks
- **Status:**
 - on schedule and within budget
 - Several “how-to” DFP tools available by contacting ATI

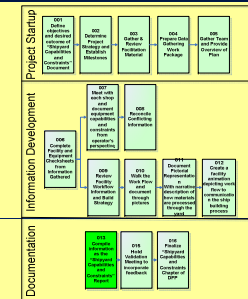
PROCESS STEP 013 Compile Information as the Shipyard Capabilities and Constraints Chapter of the DFP Manual

Purpose:

To consolidate the facility and equipment capabilities and constraints of the shipyard through “easy-to-use” summary tables and associated detailed information tables.

Desired Outcome:

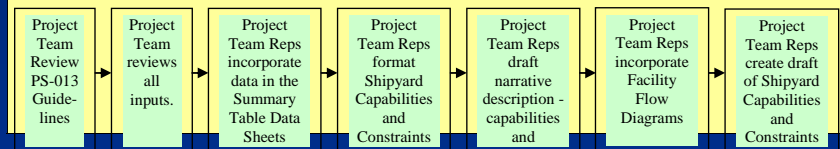
A draft of the Shipyard Capabilities and Constraints Chapter of the DFP Manual is documented.



Process Step Visual

Process Owner: Project Team Leader

Process Steps:



Inputs:

[Process Step 013 Guidelines \(A13\)](#)
[Summary Table Data Sheets \(11" x 17"\) \(A55\)](#)
[Facility Flow Diagram \(A49\)](#)
[Shop Flow Diagrams \(A50\)](#)
[Facility Flow Animation \(A54\)](#)
[Pictorial Representation of Work Flow for Shops \(A53\)](#)
 Pictorial Representation of Work Flow through Facility.
 Completed Shipyard Data Collection Work Package.
[Project Strategy Document \(A16\)](#)

Deliverables:

[Draft "Shipyard Capabilities and Constraints" Chapter of the DFP Manual. \(A56\)](#)

FY07/08 PDMT Projects Status (continued)



4. Practical Applications for Design for Producibility

- **Participants:** Bollinger, NGSB GC, Bender, Marinette, ShipConstructor, VT Halter, Genoa Design
- **Objectives:**
 - **Apply DfP Principles and Processes from last year's project**
 - **Develop functionality in ShipConstructor to support:**
 - **Integration of standard assemblies**
 - **Integration of distributive systems supports**
- **PTR:** John Walks
- **Status:**
 - **Just completed a successful quarterly review at Marinette,**
 - **draft software spec in work,**
 - **on schedule and within budget.**

Miscellaneous MITL/NSRP Items



- **Strategic Initiative Plan:**
 - No new activity
- **Electrical Working Group:**
 - Soliciting to be new major initiative with ECB
- **NAVSEA NSRP Program Manager**
 - Jamie Mattern NAVSEA 05DM is in place
- **Small Business Investment R (SBIR) Solicitation**
 - The DoD SBIR 2008.2 solicitation has been released at <http://www.acq.osd.mil/osbp/sbir>
 - It includes two topics submitted by the MITLs/PCs in September 2007.
 - The DoD began accepting proposals on May 19, 2008 and will close to accepting proposals on June 18, 2008 at 6am EST.
- **ShipTech 2009**
 - Project/Paper/Presentation abstracts deadline is 10/3

Upcoming Meetings & Events



<u>Dates</u>	<u>Event / Location</u>	<u>Comments</u>
Sep 9-11	Amer Society of Composites Annual Conference <i>Memphis, Tn</i>	
Sep 23-25	ASNE 'Engineering the Total Ship' Forum <i>Virginia Beach, VA</i>	Panel Meeting
Sep 30-Oct 1	Surface Prep & Coatings, Environmental Tech <i>Johnstown, PA</i>	Joint Panel Meeting
Oct 15-17	SNAME Maritime Tech Conf & Expo and Ships Production Symposium <i>Houston, Tx</i>	
Oct 21-23	Short Sea Shipping Workshop <i>Charlestown, SC.</i>	PDMT Panel Project

Upcoming Meetings & Events (continued)



<u>Dates</u>	<u>Event / Location</u>	<u>Comments</u>
Oct 28-30	DOD Part Standardization & Management Committee (PSMC) Conference <i>Burlingame, Ca.</i>	Parts Mgmt across DOD
Dec 1-4	Defense Manufacturing Conference <i>Orlando, Fl.</i>	Defense concentration
Dec 3-5	International Workboat Conference <i>New Orleans, La.</i>	Commercial concentration
Dec 9-11	NSRP Joint Panel Meeting <i>New Orleans, La.</i>	PDMT's next Panel Mtg
Mar 10-11	ShipTech 2009 <i>Biloxi, Ms.</i>	ONR ManTech Conference



Questions?