

**NSRP Update**

**Crosscut  
Panel Meeting**

**May 10-11, 2006**

**Mobile, AL**

# Program Funding and Ops

- **FY06 funding in hand 3/22/06**
  - » \$3.11M from PEO Ships and PEO Subs moved to JFA
- **Final contracts out to primes 3/23/06**
  - » 6 ASE projects continuing FY05 efforts--\$1.6M
  - » 7 new panel projects--\$0.6M
- **Pursuing FY07+ long term funding prospects**
  - » PEO conceptual approval of proposed CONOPS
  - » NAVSEA started prepping FAR-based contract vehicle to use SCN funds
  - » Initiated legislative fix to “color of money” issue
- **Strategic Investment Plan finalized**
  - » All corporate signatures obtained
- **Lean Forum 4 planning continuing**

# Next Research Announcement

- **Highlighted Major Initiative areas from SIP**
  - Shipyard Production Processes (6 sub-initiatives)
  - Business Process (6 sub-initiatives)
  - Product Design & Materials (4 sub-initiatives)
  - Systems (9 sub-initiatives)
  - Facilities, Tooling & Risk Management (4 sub-initiatives)
  - Crosscut (5 sub-initiatives)
- **Specific Interest Areas**
  - Lean/Six Sigma Enterprise Concepts
  - Enterprise Integration / Interoperability Enabling Concepts
  - Design For Production / Production Engineering
- **Open, collaborative projects w/ broad applicability**
- **Rapid execution**

# Call for Panel Whitepapers

- **ECB has not yet approved the plan, but the following assumptions are not unreasonable:**
  - Anticipate release ~ this summer coincident with RA5
  - Nominally \$600K in funding
- **Panels encouraged to begin whitepaper development now**

# Panel Activity Update

- **Panel projects are underway** *(more details follow)*
  - All 7 projects on contract within 8 days of funding being received
- **Planning for spring & summer panel meetings underway**
- **Ship Production Symposium 2006**
  - Oct 11-13, Ft. Lauderdale
  - Panel Chairs supporting Paper Coordination effort

# Panel Project Update

7 Projects awarded last cycle totaling \$571K in funding

Project	Panel	Status
Cold Wire Feed SAW	Weld	Ongoing
TipMate SAW Noxxles	Weld	Ongoing
STEP-NC for Steel Production	Sys	Ongoing
Panel Line Optimization (PLOPS)	SPPT	Ongoing
Workforce Preparation Improvements	CC	Ongoing
EPA Residual Risk Regulation – Part 2	Env	Ongoing
Surplus/On-Hand Material in CPC	PDMT	Ongoing

Project	Panel	Status
Lessons Learned for Coatings	Surf	ITAR Resolved – 2 MSC ships (USNS SISLER & POMEROY) selected for study

# Lean Shipbuilding & Ship Repair Forum 2006

September 12-14 Jacksonville, FL

- **Theme: “*Shipbuilding Affordability Through Lean/Six Sigma*”**
- **Technical Tracks**
- **“Crackerbarrel”**
  - Timed, facilitated small-group discussions on selected Lean topics
  - Response to LIG/other participants’ desire for more best practice sharing, less ‘teaching’
- **Dinner Speaker**
  - Jerry Bussell, Medtronic has tentatively accepted
- **Tours**
  - Ameritape (specialty tape & label stock)
  - Atlantic Marine (ship construction & repair)
  - Jacksonville Electric Authority (power generation)
  - Medtronic (medical technology mfg. & services)
  - NAVAIR Depot Jacksonville (aircraft engine overhauls)
  - Pilot Pen (writing instruments)
  - RexCorp (paperboard packaging)

# Upcoming Conf. & Panel Meetings

<u>Dates</u>	<u>Event / Location</u>	<u>Comments</u>
May 16 – 17	Shipyards Production Process Technologies, Systems Technology and Business Process Technologies <i>Seattle, WA</i>	Joint Panel Meeting
May 16-19	International Marine Design Conference Ann Arbor, MI	UMich/SNAME/ASNE
May 23 – 24	Facilities, Tooling & Risk Management <i>Jacksonville, FL</i>	Panel Meeting
June 13 – 14	Surface Prep & Coatings <i>Norfolk, VA (tentative)</i>	Panel Meeting
June	Environmental Technologies <i>Jacksonville, FL</i>	Panel Meeting
July 25-27	Crosscut Initiatives <i>Seattle, WA</i>	Panel Meeting

# NSRP-Related Tentative Funding Opportunities

- **SBIR**
  - **FY05 1<sup>st</sup> Cycle**                      **5 Phase I Projects Completed**  
**4 Phase II Awards In-process**
  - **FY05 3<sup>rd</sup> Cycle**                      **6 Phase I Selection Made; Contracts**  
**Awarded**
  - **FY06 1<sup>st</sup> Cycle**                      **3 Phase I Awards Approved (in**  
**Contracting)**
  - **FY06 2<sup>nd</sup> Cycle**                      **May 1 2006 Topic Announcement**
  - **FY06 3<sup>rd</sup> Cycle**                      **Aug 1 2006 Topic Announcement**
- **STTR**                      **FY07    typically \$.5M-\$1.5M**
- **Navy ManTech**                      **FY07    typically >\$30M annually**  
**Shipbuilding Initiative**  
**(not planned, but ...)**
- **Shipbuilding Industrial**  
**Base Improvement Pgm ??              \$??**  
*(don't know funding origin or*  
*NSRP role if any)*

# SBIR FY2005 Round 3 – Submitted Topics

Six Phase I Projects Awarded – 4 SPPT Related – 2 Crosscut Related....*Likely Two Phase II's will Result from this Solicitation*  
( *Estimated Total \$2.0M budget 'topic' area*)

- **Ship Production Process Technologies**

- Simulation-based facility-utilization Decision Support System
- Distortion Control
- Expanding Statistical Process Control
- Technologies that support facility modernization
- Joining Technologies
- Material Cutting and Processing Technologies

- **CrossCut**

- Improving shipbuilding industry skill standards
- Knowledge management methodologies to effectively harness and transfer aging workforce skills to younger workforce
- Techniques and technologies to improve physically demanding work conditions for shipbuilding and ship repair workers

# SBIR FY2006 Round 1 – Submitted Topics

Three Phase I Awards in Process – 2 SPC Related; 1 SPPT Related DoD  
*Two Phase II's will Result from this Solicitation  
( Estimated Total \$1.7M per Navy-selected 'topic'  
projects)*

- **N06-061 In-Situ Application of Powder Coating Technology**
  - OBJECTIVE: Develop and implement an innovative approach for the in-situ application of power coatings to confined and/or constrained spaces at a greater thickness than current application methods will allow
- **N06-062 New Approaches to Shipbuilding Finishing and Assembly Operations**
  - OBJECTIVE: The objective of the project is to develop and implement new, innovative in-situ field manufacturing and finishing technologies that can impact the cost and cycle time to construct, modernize and repair Navy ships

# SBIR FY2006 Round 2 – Submitted Topics

Topics will be posted on DoD website by 5/1/06; DoD *Proposal Acceptance will begin 6/14/06.... approx \$2.0M per projects under this Solicitation*

- **Advanced Environmental Monitoring Technology for Domestic Shipbuilding**
  - Sensor technology , systems development and wireless technology for real-time NESHAP limit monitoring of storm-water and industrial waste water run-off
- **Improved Technology to Nondestructively Test Marine Aluminum Structures**
  - Rapid, nontraditional surface inspection methods focused on fatigue cracks
  - Field methods to determine sensitized 5XXX aluminum plate

# SBIR FY2006 Round 3 – Submitted Topics

If selected, topics will be posted on DoD website by 8/1/06; DoD *Proposal Acceptance will begin 9/15/06.... approx \$2.0M per Navy-selected Phase I and II Projects*

- **Design and Planning Tools**

- Develop rule-based design and engineering support to allow aid in rapid decision-making on common shipbuilding issues (i.e. weld planning, Material availability and alternative selection, life-cycle data ( corrosion data/repair history information database)

- **Seamless Integration of Design Model Information**

- Methods to facilitate seamless transmission of design data between different design software systems
- Methods to reduce the time and effort to populate the final product model with design data

**BACKUP SLIDES**

# SBIR Overview

- **Small Business Innovation Research designed to:**
  - stimulate technological innovation
  - increase private sector commercialization of federal R&D
  - increase small business participation in federally funded R&D
  - foster participation by minority / disadvantaged firms in technological innovation
- **To participate in SBIR:**
  - Firm must be a U.S. for-profit small business of 500 or fewer employees
  - Work must be performed in the United States
  - > 2/3 of Phase 1 effort must be performed by proposing firm; >1/2 of Phase II
  - Principal Investigator must spend > 1/2 of time employed by the proposing firm
  - Topic must have military and commercial value
- **Project Phases**
  - Phase I      Feasibility Study                      \$70K for 6 mos (\$30K/3 mos option)
  - Phase II      R & D    \$750K for 2 yrs
  - Phase III      Implementation                              coordinate w/ NSRP
- **~ 1/2 of Phase I projects are funded for Phase II**
- **NSRP topics designed as opportunity for small businesses to get federal funds for research and for the yards to collaborate with them**

# Small Business Technology Transfer (STTR)

- **Similar in structure to SBIR but funds *cooperative* R&D projects involving a **small business** and a **research institution****
- **To participate in the STTR program:**
  - Firm must be a U.S. for-profit small business < 500 employees; No size limit on the research institution
  - Research institution must be a U.S. college or university, FFRDC or non-profit research institution
  - Work must be performed in the United States
  - Small business must perform > 40% of the work and the research institution > 30% of the work in both Phase I and Phase II
  - Small business must manage & control the STTR funding agreement
  - Principal investigator may be employed at the small business or research institution
- **No STTR funds for new NSRP projects FY05/06; funds for new STTR expected FY07**

# Navy ManTech Shipbuilding Initiative

- **Leverages the ManTech Program toward broadly applicable shipbuilding technologies.**
  - Stresses broad teaming
  - Match shipbuilder needs with ManTech Centers' technical capabilities
  - ONR funds these projects directly to the COEs and manages the contracts
  - Examples of SI projects:
    - » "Automated Materials Joining and Flexible Fixture Design to Support Product-Centered Structural Fabrication"  
*Navy Joining Center, iMAST, Electric Boat*
    - » "Carrier Modular Outfit Facility (CMOF) Analysis and Simulation"  
*iMAST, NGNN*
    - » "Overspray Elimination through Development of High Transfer Efficiency Painting Technologies"  
*iMAST, Gulf Coast Region Maritime Technology Center, Todd Pacific, Atlantic Marine*
- **No FY05 or FY06 new starts planned ... BUT, watch this space...**