“Amphibious Ship Acquisition”

NDIA 17th Annual Expeditionary Warfare Conference

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Amphibious, Auxiliary & Sealift Office

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The Navy Today

- 321,053 Active Duty Officers, Sailors and Midshipmen
- 64,164 Selected Reserve Sailors
- 4,262 Activated Reservists
- 203,609 Civilians
- 47,943 Sailors Deployed Afloat
- 286 Deployable Battle Force Ships
- 109 Ships Underway – 38% (away from homeport)
- 73 Ships Deployed – 25%
PEO Ships in Design and Construction
## Product Lines

<table>
<thead>
<tr>
<th>MILESTONES</th>
<th>A</th>
<th>B</th>
<th>Operations &amp; Support</th>
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<tbody>
<tr>
<td>Pre AoA</td>
<td>Material Solutions Analysis</td>
<td>Technology Development</td>
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<tr>
<td>DDG(X)</td>
<td>LHD(X)</td>
<td>T-AGOS</td>
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<td>T-AF(X)</td>
<td>T-AO(X)</td>
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<td>DDG 1000</td>
<td>DDG 51</td>
<td>AGOR</td>
<td>CG 47</td>
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<td>AGOR</td>
<td>MLP</td>
<td>DDG 51</td>
<td>FFG 7</td>
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<td>MLP</td>
<td>LHA 6</td>
<td>DDG 1000</td>
<td>LHD 1</td>
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<td>MLP</td>
<td>DDG 51</td>
<td>LHD 1</td>
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<td>MLP</td>
<td>LHA 6</td>
<td>AGOR</td>
<td>LCC 19</td>
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<td>AGOR</td>
<td>MLP</td>
<td>DDG 51</td>
<td>LCAC</td>
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<td>LHA 6</td>
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<td>MLP</td>
<td>DDG 51</td>
<td>T-AGM</td>
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<td>LHA 6</td>
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<td>DDG 51</td>
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Surface Shipbuilding Successes Today

Ship Construction Awards:
- 22 USN ships procured between Jun 2011 and Jul 2012; contract value of $10.4B (of all options exercised or contracted for future year ships)

Ships Delivered:
- T-AKE 12 (WILLIAM McLEAN), 28 Sep 2011
- LPD 22 (SAN DIEGO), 19 Dec 2011
- T-AGM 25 (HOWARD O. LORENZEN), 10 Jan 2012
- T-AKE 13 (MEDGAR EVERS), 24 Apr 2012
- DDG 112 (MICHAEL MURPHY), 4 May 2012

Upcoming Deliveries:
- LPD 23 (ANCHORAGE)
- LPD 24 (ARLINGTON)
- JHSV 1 (SPEARHEAD)
- T-AKE 14 (CESAR CHAVEZ)

Boats and Craft:
- 95 boats and craft under contract or construction

FMS Update:
- 51 FMS craft under contract or construction.

Current PEO Portfolio

<table>
<thead>
<tr>
<th>Under Contract &amp; Building</th>
<th>To Go (FY 12)</th>
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<tbody>
<tr>
<td>4 DDG 51</td>
<td>9 DDG 51 (MYP)</td>
</tr>
<tr>
<td>3 DDG 1000</td>
<td>----</td>
</tr>
<tr>
<td>2 Deckhouses</td>
<td>1 Deckhouse</td>
</tr>
<tr>
<td>5 LPD 17</td>
<td>----</td>
</tr>
<tr>
<td>2 LHA</td>
<td>----</td>
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<tr>
<td>1 T-AKE</td>
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<tr>
<td>10 JHSV</td>
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<tr>
<td>9 SSC</td>
<td>----</td>
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<tr>
<td>1 T-AGS</td>
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<tr>
<td>3 MLP</td>
<td>----</td>
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<tr>
<td>2 AGOR</td>
<td>----</td>
</tr>
<tr>
<td>42</td>
<td>10</td>
</tr>
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</table>
Figure 1. Annual Funding Required for Navy Long-Range Shipbuilding (FY2013-2042) (FY2012$)

Note: This estimate shows funding required for the Navy's combat and support force.

Source: Office of the Chief of Naval Operations
## Inflation Comparison for Selected Industries 1990=1

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<tbody>
<tr>
<td>Navy Shipbuilding Inflation</td>
<td>3.6%</td>
<td>3.0%</td>
</tr>
<tr>
<td>PPI, Iron &amp; Steel Mills</td>
<td>3.4%</td>
<td>1.4%</td>
</tr>
<tr>
<td>PPI, Aircraft</td>
<td>3.0%</td>
<td>2.5%</td>
</tr>
<tr>
<td>PPI, Aeronautical Nautical and Navigational Instruments</td>
<td>2.8%</td>
<td>2.0%</td>
</tr>
<tr>
<td>PPI, Ship and Boat Building</td>
<td>2.6%</td>
<td>2.7%</td>
</tr>
<tr>
<td>PPI, Ship Building and Repair</td>
<td>2.6%</td>
<td>2.4%</td>
</tr>
<tr>
<td>PPI, Railroad Rolling Stock</td>
<td>2.1%</td>
<td>1.5%</td>
</tr>
<tr>
<td>OSD Inflation</td>
<td>2.0%</td>
<td>1.8%</td>
</tr>
<tr>
<td>PPI, Industrial Machinery</td>
<td>1.6%</td>
<td>1.2%</td>
</tr>
<tr>
<td>PPI, Motor Vehicles and Parts</td>
<td>0.8%</td>
<td>1.1%</td>
</tr>
<tr>
<td>PPI, Semiconductor Equipment</td>
<td>0.3%</td>
<td>-0.5%</td>
</tr>
<tr>
<td>PPI, Communications Equipment</td>
<td>-0.5%</td>
<td>-0.9%</td>
</tr>
</tbody>
</table>

Source: BLS Historical PPI – Global Insight 2012 Q1 Forecast
Program Status:
- USS AMERICA (LHA 6) launched 04 Jun 2012; Christening 20 Oct 2012
- USS TRIPOLI (LHA 7) contract awarded 31 May 2012; start fab Apr 2013
- LHA 8 (Flight I) preliminary design underway
- IOC planned for FY2016

Cost Reduction Initiatives:
- USS AMERICA (LHA 6) is a modified repeat design of USS MAKIN ISLAND (LHD 8)
- Working diligently with shipyard on efficiency improvement, increased productivity and risk mitigation
San Antonio (LPD 17) Class

Program Status:
- Six ships delivered and commissioned (LPD 17-22)
- Five ships under construction (LPD 23-27) in Avondale and Pascagoula
- IOC: April 2008
- Four ships have completed initial deployments; USS San Antonio (LPD 17), USS New Orleans (LPD 18), USS Mesa Verde (LPD 19) & USS Green Bay (LPD 20)
- USS New York (LPD 21) deployed in Mar 2012

Cost Reduction Initiatives:
- New class build plan implemented with LPD 22-25 contract
  - Optimized sequencing of work packages
- Reduced LPD 26-27 Integrated Shipboard Electronics cost by over 50%
Program Status:

- Early concept phase
- Lead ship funding is planned for outside the FYDP
- The Navy intends to competitively procure ship
- Analysis of Alternatives is scheduled to start Fall 2012
  - LPD 17 hull form is one of several materiel solutions that will be explored as Navy examines alternatives
  - Production efficiency will be a factor considered when examining alternatives
Program Status:
- Detail Design & Construction (DD&C) contract for USNS MONTFORD POINT (MLP 1) & USNS JOHN GLENN (MLP 2) awarded 27 May 2011
- DD&C contract for USNS LEWIS PULLER (MLP 3) awarded 26 Feb 2012
- PB13 included request for MLP/AFSB in FY14
- USS PONCE serving as interim capability (AFSB-I)
- Core Capability Set (CCS) contract award planned Fall 2012

Cost Reduction Initiatives:
- 2010 Navy Acquisition Excellence Award for Innovation
- Saved $2.1B in construction costs for class
- Uses a concurrent design/production engineering approach to ensure a high degree of design and production planning maturity prior to start of construction to minimize cost and schedule risk
- Competitive contract for deck interface (CCS)
**Program Status:**

- Detail Design and Construction contract for ten ships
- USNS SPEARHEAD (JHSV 1) expected to deliver Fall 2012
- USNS CHOCTAW COUNTY (JHSV 2) start fab in September 2010; Christening 16 Sep 2012
- USNS MILLINOCKET (JHSV 3) start fab in Sep 2011; expected to deliver Jul 2013
- Options awarded JHSV 4-9; JHSV 10 funded FY 2013

**Cost Control Initiatives:**

- Designed to commercial standards
- Conducted rigorous production readiness review prior to start of construction, ensuring design maturity greater than 85%
- Newly constructed Modular Manufacturing Facility will aid in production of high quality ship modules and improve production efficiencies
  - *Improve capacity, production planning and process control*
  - *Reduce construction duration, lower production costs, and mitigate existing production process and control risks*
LEWIS AND CLARK (T-AKE 1) Class

Program Status:

- T-AKE is a 14-ship “Dry Cargo/Ammunition Ship” program
- 13 of 14 ships built and delivered to date (T-AKE 14 delivers in October 2012)
- Two of the 14 ships are designated to support Maritime Prepositioning Squadrons (MPS) 1 and 2
- USNS WILLIAM MCLEAN (T-AKE 12) and USNS MEDGAR EVERS (T-AKE 13) are currently rotating to CLF, with USNS LEWIS AND CLARK (T-AKE 1) and USNS SACAGAWEA (T-AKE 2) rotating to MPS 1 and 2
- T-AKE as class is exceeding Ready for Tasking target (270+ days RFT)

Cost Reduction Initiatives:

- Last five ships converted from Fixed-Price Incentive Fee to Firm Fixed Price based on design & production maturity and cost stability
- NASSCO has achieved an 79.5% learning curve across the class, facilitated in part by maintaining efficient 2 ships/year build rate
**Riverine Boats and Craft**

**Program Status:**
  - Initial procurements:
    - 33' Riverine Assault Boats (RAB): 12 boats
    - 39' Riverine Patrol Boats (RPB): 19 boats
    - 49' Riverine Command Boats (RCB): 6 boats
  - Coastal Riverine Force (CRF) realignment under NECC in 2012 - includes MK VI Patrol Boat (PB)
  - Current procurements:
    - 85' MK VI Patrol Boat: 6 boats (deliver FY13/14)
    - 65' Coastal Command Boat (CCB): 1 boat (deliver FY13)
    - 49' Riverine Command Boats (RCB): 2 boats (deliver FY14)
**Landing Craft, Air Cushioned (LCAC)**

- **Description:** LCAC is an air cushion vehicle that provides high speed, ship-to-shore, over-the-beach amphibious capability to lift all equipment, organic to the ground element of a Marine Air/Ground Task Force.
- **Program Status:**
  - 79 operational craft and 2 test craft
  - Service Life Extension Program (SLEP) extends service life of craft from 20 Years to 30 Years
  - 39 LCACs have received SLEP upgrades, another 11 are currently under contract as of 24 Aug 2012
  - Contract for 22 more SLEPs between now and FY18 for a total Program of Record of 72 SLEPs
- **Cost Reduction Initiatives:**
  - Preventative maintenance strategy via craft-specific Corrosion Control inspections and training
  - Energy efficiency initiative to help reduce fuel consumption, operate more efficiently, and reduce carbon footprint
  - HM&E and C4N product improvement studies to help improve safety and reliability
LCAC / SSC Transition

SSC CDD requirement: 73 craft
(1 T&T craft; 72 operational craft)
Ship-to-Shore Connector (SSC)

- **Description:** SSC is the functional replacement for the existing fleet of LCACs, which are nearing the end of their service life. SSC provides increased performance to handle current and future missions, as well as improvements which will increase craft availability and reduce total ownership cost.

- **Program Status:**
  - Milestone A approval and Acquisition Decision Memorandum (ADM) signed by AT&L May 2009
  - Milestone B approval and ADM signed by AT&L Jul 2012
  - Detail Design and Construction (DD&C) contract awarded 6 Jul 2012
  - IOC planned for FY2020

- **Cost Reduction Initiatives:**
  - 25 LCAC maintenance drivers addressed with design improvements to mitigate excessive maintenance
  - More fuel efficient gas turbine engines
  - Government design allowed for increased competition, reduced overall procurement costs, and leads to smooth transition to full production
Landing Craft Utility (LCU)

- **LCU Program Status**
  - In extended service life age ranging 39-51 years
  - 32 In-Service LCU
    - 16: ACU 2, Joint Expeditionary Base, Little Creek, VA
    - 12: ACU 1, Naval Amphibious Base, Coronado, CA
    - 4: Naval Beach Unit 7, forward-deployed detachment in Sasebo, Japan

- **Cost Reduction Initiatives**
  - Reduced average alteration installation team (AIT) modernization availability from twelve to nine weeks
  - Increased focus on meeting logistics objectives ensures better maintenance and availability into the extended service life of the craft
  - Revamped boat alteration development process, enforcing ship checks and redlines thus mitigating scope increases and managing growth work

- **SC(X)(R) Program Status (LCU Recapitalization)**
  - LCU(R) program renamed Surface Connector (X) Recapitalization by OPNAV N95 in Jul 2012
  - RFI/Sources Sought for Surface Connector (X) issued 1 Aug 2012
Shipbuilding Focus Areas

Affordability

- Focus on cost and execution performance and production
- Focus on mature design plans before start of construction
- Focus on long-term contracts (MYP, Block Buy)
- Focus on fixed-price type contracts
- Active Navy management of material (GFE, CFE)
- Fee aligned with risk

Wholeness

- Balanced approach to readiness across the spectrum of warfighting mission capabilities
- New ships and shipboard systems must arrive on the doorstep ready to operate
- Quality
QUESTIONS?