PMS 385
Strategic and Theater Sealift
Program Office

Expeditionary Warfare Conference
October 28, 2015
CAPT Henry W. Stevens III, USN
USNS MONTFORD POINT (ESD 1) Capabilities
(Expeditionary Transfer Dock – ESD formerly MLP)

- 34 Crew Berths
- 20k lb Mission Crane
- 15 knots, 9,500 NM
- 25k sq ft Raised Vehicle Deck with Commercial Helo Spot
- ESD Length – 785ft / Beam – 164ft
- 3 LCAC Lanes with Services
- DP-0 w/Bow Thruster
- Vehicle Transfer Ramp (VTR)

- 380k gal JP-5 storage
- 100k gal Potable Water Storage/ 25k gal daily production

- Ballast/Deballast Operations

- ESD deployed alongside LMSR (skin-to-skin)
- Vehicles transfer from LMSR/EPF to ESD via sideport ramp and then onto LCACs
- LCACs deliver equipment to shore

- Net-Ready
- Satellite Communications
- NIPR/SIPRNET

Last verified: 15 Sep 2015
Using New Ships New Ways
ESD Deliveries

USNS MONTFORD POINT (ESD 1)
• Start of Construction: June 24, 2011
• Keel Laying: January 19, 2012
• Launch: November 13, 2012
• Christening: March 2, 2013
• Delivered: May 14, 2013

USNS JOHN GLENN (ESD 2)
• Start of Construction: April 17, 2012
• Keel Laying: December 4, 2012
• Launch: September 15, 2013
• Christening: February 1, 2014
• Delivered: March 12, 2014

Delivered on time, on budget with no starred cards from INSURV
USNS MONTFORD POINT (ESD 1) IOT&E completed Oct 2014
USNS LEWIS B. PULLER (ESB 3) Capabilities
(Expeditionary Mobile Base – ESB formerly MLP AFSB)

Photo Source: General Dynamics NASSCO

- **Hangar 2 MH-53E Folded**
- **250 Military berths**
- **Supports conducting AMCM and lower end SOF Mission Sets**
- **Mission Deck Cargo Capacity: 4 MK 105 MCM sleds equiv & four 7-M RHIBs, 12 TEUs**
- **25k lbs Crane Mission Deck and 20K lb Crane fwd Aft House**
- **AMCM Magazines**
- **Embarked Force Command and Control/ Mission Planning/ Execution**
- **Two Level I/Class 2 [Air Capable Ship] Operating Spots**
- **Hybrid Crew MSC and MILDET**
- **Tankage for 350k gal JP5 and 100k gal potable water/ 25k gal daily production**
- **Provides four Core Components: aviation, berthing, equipment staging [sled/small boat ops] and command and control**
- **15 knots, 9,500 nm**

Last verified: 15 JAN 2015
USNS LEWIS B. PULLER (ESB 3)

Start of Construction: Feb 2013
Keel Laying: Nov 2013
Float Off: Nov 2014
Delivery: Jun 2015

Photo Source: General Dynamics NASSCO

Underway for Builders Trials April 8, 2015
EPF in the Fleet
(Expeditionary Fast Transport–EPF formerly JHSV)

EPF 1-5 In Service; 6-10 deliveries planned every 6 months
Amphibious Warfare Program

20th Annual NDIA Expeditionary Warfare Conference
28 October 2015

Tom Rivers
Program Manager
PEO Ships (PMS377)

DISTRIBUTION STATEMENT A
Approved for public release; distribution is unlimited.
Programs

LCU 1700

Surface Connector (X) Recapitalization

SSC

LCAC / LCAC SLEP

LCU

AADS

# Big Deck Evolution

<table>
<thead>
<tr>
<th>LHD 8</th>
<th>LHA(R) FLT 0 (LHA 6/7)</th>
<th>LHA(R) FLT 1 (LHA 8)</th>
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</thead>
<tbody>
<tr>
<td>2009</td>
<td>2014/2018</td>
<td>2024 (Planned)</td>
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All Electric & Hybrid Propulsion (Gas Turbine/Electric)
LHA(R) Flt 0 & Flt 1 Top-side View

Reduced Island Design

LHA(R) Flt 0

LHA(R) Flt 1
LHA(R) / JSF Integration

Cornerstone Alterations
- Power
- Maintenance/Logistics
- Weapons & Missions Support

External Environment Alterations
- Flt Deck Structure & Coatings
- Weapons Systems
- Antennas
- Peripheral Services & Systems
SLEP Program Elements

**BUOYANCY BOX REFURBISHMENT**
- Address Corrosion Problems
- 20-Year Service Life
- Incorporates Hull Upgrades and Improvements

**ENHANCED ENGINES**
- Provides Additional Power
- Reduces Fuel Consumption
- Reduces Maintenance

**ROTATING MACHINERY REFURBISHMENT**
- Extends Useful Life of Equipment
- Reduces Maintenance

**C4N REPLACEMENT**
- Introduces Open Architecture
- Introduces Modern COTS Equipment
- Provides Precision Navigation
- Provides Common Tactical Picture
- Provides Common Suite Interoperability

**DEEP SKIRT**
- Reduces Drag
- Increases Performance Envelop
- Reduces Maintenance
- Increases Obstacle Clearance
LCAC Fleet Modernization Elements

**BUOYANCY BOX**
- Limited Compartment Painting
- Selected Hull/Engine Module Repairs
- Thicker Aft FO/Waste Oil Tanks

**HULL, MECHANICAL & ELECTRICAL**
- Air Conditioning
- Light Weight Armor
- Stators/Shrouds
- Misc. Auxiliary Systems

**C4N UPGRADES**
- AN/ARC-210 & 220 Radios
- SLEP Navigator Suite to Replace NDI
- BM E Radar on Legacy Craft
- AADS/EPLRS
- Motorola MOM XTS-5000
- DAGR/GAS-1 Antenna (ADAP 2011+)
- AN/APX-123 IFF 2012+

**ENGINES/AUXILIARY POWER UNIT (APUs)**
- Water Wash System
- APU Corrosion Reduction
- Fuel Coalescer Power

**DEEP SKIRT REPAIR**

SSC Design Characteristics
More Lift + Lower Fuel Consumption + Less Maintenance

Advanced Skirt
Cargo Deck Sized for M1A1 Tank
Pilot / Co-pilot Arrangement
Fuel Efficient Engines
Efficient Propellers
LCU 1610

- 32 LCU 1610 craft in service; average age is **45 years old**
- The LCU 1610 *designed service life was only 25 years*

LCU 1617, is now **56 years old**

- Block system obsolescence
- Increasing maintenance costs
- Payload derated due to age/service life
- Corrosion repairs
LCU Corrosion
Notional Capabilities

- Payload: up to 170 ST
- Personnel transport
- Range: 1,200 NM unfueled
- Speed: 11 knots maximum, 8 knots endurance
- Independent operation capable up to 10 days

GOAL = RESTORE / RECAPITALIZE
LCU 1610 CAPABILITIES
LCU Ruggedness
Habitability
Stability
Maintainability

Notional LCU 1700

IT’S A WORKBOAT
SIMPLE, RUGGED AND RELIABLE…
…and needed!
LCU 1600 vs. 1700
LCU Shoring in Well Deck
Amphibious Assault Direction System

AADS
Challenges

- Affordability
- Obsolescence
- Maintainability
PMS377...
Serving the needs of the Navy-Marine Corps Team since 1966
LPD 17 and LX(R) Overview

Marianne Lyons
Deputy PMS 317 Program Manager
LPD 17/LX(R) Shipbuilding Program
LPD 17 Class History

1988  Conceived at the end of the Cold War to replace the aging LPD 4 class and three other amphibious ship classes. (41 ships).

1994  PMS 317, LPD 17 Program Office, established.


2005  LPD 17 delivered to the Navy. Hurricane Katrina strikes shortly after LPD 17’s crew moves aboard.
Where We Are

✓ LPDs 17 to 25 delivered. LPD 20 forward stationed in Japan.

✓ Future USS John P. Murtha LPD 26 and USS Portland LPD 27 under construction at HII.

✓ Planning in progress for LPD 28, 12th ship of the Class.

✓ Eight LPDs have deployed 15 times to date with the longest deployment lasting 321 days.
LPDs: Mission Flexible

✓ Flagship for anti-pirate operations off of Somali.

✓ Two times supported terrorist capture operations in Med.

✓ Haiti Earthquake and Hurricane Sandy relief operations.

✓ Orion spacecraft recovery platform.

Continuous Improvement

- Partnership with Huntington Ingalls Industries to achieve higher level of completeness and quality at ship delivery; and greater stability in build plans for follow-on ships.

- Each successive LPD receiving fewer INSURV trial cards during Acceptance Trials and exhibiting increased levels of material readiness at delivery.

LPD 23 at Sailaway and LPD 24 on Acceptance Trials.
Follow On Improvements

✔ Working closely with the in service fleet to fold in recommendations and production initiatives for follow on ships and backfit to existing LPDs.

✔ LPD 28 - Integrating technically feasible affordability initiatives into the design to reduce costs and sustain mission capability.

✔ Seeking to reduce costs in the following areas:

Top Cost Driver Areas:
- Outfit, General Arrangements, Habitability, Modularity and Flexible Infrastructure
- Machinery and Auxiliary Equipment
- Structures, Shock and Survivability
- Electrical, Control Systems, Networks and Design Environment
- IWS/C4I GFE systems affordability deep dives
LX(R) Program Description

✓ LX(R) to numerically replace the LSD 41/49 Classes as they reach the end of their service life
  ▪ Lead ship procured in FY20 and the follow-on ships sequentially commencing in FY22.
  ▪ Lead ship expected to deliver in FY26.

✓ LX(R) requirements refined through the AoA studies
  ▪ Embarkation capacity requirements have grown, e.g., anti-IED armor increasing vehicle size and weight.
  ▪ LX(R) operational capabilities are based on conducting independent, split and disaggregated Amphibious Readiness Group (ARG) operations with an embarked Special Purpose Marine Air-Ground Task Force, in addition to “traditional” missions supporting the ARG/Marine Expeditionary Unit (MEU) and Amphibious Task Force (ATF)/Marine Expeditionary Brigade (MEB)
General Dynamics and Huntington Ingalls Industries engaged in study effort to:

- Help Navy refine the Analysis of Alternatives (AoA) - Industry input on material, labor and overhead estimates;
- Identify top labor, material and total cost drivers at system and/or subsystem level; and
- Identify cost reduction initiatives.

Effort resulted in:

- LX(R) platform, based on a derivative of LPD 17 design, provides sufficient capability and capacity at the cost targets.
- USN and USMC warfighters concurrence - concept provides the right level of capability and capacity, “without sacrificing capability.”

Detailed Requirements (KPPs & KSAs) defined in LX(R) Capabilities Development Document (CDD)
Where We Are Headed

- LPD 28. Congress appropriated $1B in FY15 for LPD 28 combined with AP in FY13; remainder of ship to be funded by Navy in PB16. Waiting on final appropriation bill.

- LX(R).
  - Eleven LX(R) ships will surpass the capability of the twelve ships in the LSD 41/49 Classes as they reach the end of their service life
  - AoA complete and LPD 17 derivative design approved at a Gate 2 in Jan 15
  - CDD is in Joint Staffing
  - A competitive lead ship design/construction award is planned for FY20.
Capable Ships At An Affordable Price
U.S. Navy Boat Program

25’ FP Small

11m NSW RIB

7m STD RIB (USFFC)

8m Support Craft (NSW)

8.5m EOD MERC

60’ Diver Support Boat

11m STD RIB (USFFC)

11m Surface Support Craft (NSW)

WB Medium

51’ Riverine Command Boat

11m EOD RIB (SPAWAR)

110’ Range Training Support Craft

Mr. Mike Kosar
Program Manager
PEO Ships (PMS325)

Mr. John Lighthammer
Principal APM
PMS325G

78’ MK VI Patrol Boat
U.S. Navy Boat Program

- Boat & Craft acquisition and life cycle services to Fleet Forces, CNIC, NECC and Other Customer enterprises
- Typical missions include AT/FP operations; SAR; Maritime Interdiction/VBSS; personnel/cargo transport; environmental control, firefighting, and dive support
- Average Budget at $70M OPN for approximately 106 boats across 19 contracts (average based on last 7 years)
- Annual LCM budget of approximately $10M O&MN
- Current boat acquisition programs include:
  - MK VI Patrol Boat
  - Ship’s 7m & 11m Rigid Inflatable Boats
  - Diver Support Boats & Naval Dive Support Training Center UB
  - Navy Special Warfare Short & Long Range Support Craft
  - Underwater Construction Team Boats
  - Force Protection and Fleet Harbor Security Boats
  - Range Training Support Craft
  - Oil Spill Response Boats
  - SUPSALV Boom Handling Boat
  - Special Mission Boats (EOD 11m RIB)
  - Fleet Survey Team Workboat
FY15 Navy Boat Procurement Data

• **19 Contracts or Delivery Orders for 91 Total Boats**
  • 10 Boats for NECC and 10 Boats for NSW

• **Conducted 18 Boat Trials across 13 Builders**
  • 4 Trials for NECC Boats and 2 Trials for NSW Boats

• **Accepted 87 Boats and Issued 83 new Boats into the Fleet**
  • NECC – 7 Accepted and 4 Issued to Fleet
  • NSW – 12 Accepted and 12 Issued to Fleet
Coastal Riverine Force
Expeditionary Security

Mission
Conduct maritime security / force protection operations worldwide in the near coast, inshore areas

Coastal Riverine Force

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<th>MKVI Patrol Boat (85 ft)</th>
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<td>Coastal Command Boat (65 ft)</td>
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<tr>
<td>Force Protection Patrol Boat (34 ft &amp; 25 ft)</td>
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<tr>
<td>Riverine Command Boat (51 ft)</td>
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<tr>
<td>Riverine Patrol Boat (38 ft)</td>
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<tr>
<td>Riverine Assault Boat (33 ft)</td>
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34-ft Force Protection Large

85-ft MKVI Patrol Boat – IN PRODUCTION

51-ft Riverine Command Boat
Coastal Riverine Force
MK VI Patrol Boat

Mission: Mission includes Mine Counter Measure (MCM), High Value Asset (HVA) shipping escort and Visit, Boarding, Search, and Seizure (VBSS operations), Theater Security Cooperation (TSC), and Security Force Assistance (SFA).

User: NECC/CRG  Quantity: 12

Builder: Safe Boats Intl  Contract: FFP

Key Characteristics
- Hull Material: Aluminum w/ ballistic protection
- Length X Beam: 84.8’ X 20.5’
- Maximum Speed: 35+/25+ Kts (Max / Cruse)
- Range: 600+ nm
- Propulsion: MTU 16V2000
- Weapons: Stabilized Small Arms Mounts (Qty 4) Fwd/Aft MK 38 Mod 2 Mounts; Fwd/Aft Multiple Machine Gun fnds.

Procurement and Delivery Status:
- Patrol Boats 1 & 2 Issued to Fleet (Sept. 2015)
- Patrol Boats 3 & 4 accepted by Navy
- Patrol Boats 5, 6 & 7 Currently in Production
- Remaining Boats w/ PB 12 delivering 2QFY18
**Explosive Ordnance Disposal Expeditionary Security**

**Mission** - Mobile Diving and Salvage and EOD applications conducting maritime Mine Countermeasures (MCM), Countering Improvised Explosive Devices (IEDs),

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<th>EOD Mine Countermeasure (5.6M - 11M RIBs)</th>
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<td>Multi-Use Explosive Ordnance Response Craft - 8.5M MERC</td>
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<tr>
<td></td>
<td>Workboat/Utility Boat</td>
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<td></td>
<td>Underwater Construction Team (36ft)</td>
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</table>

8.5m Multi Purpose EOD Response Craft – IN PRODUCTION

11m Expeditionary Mine Counter Measure RIB

36-ft UCT Work Boat
Explosive Ordnance Disposal
8.5m MERC

Mission: Mobile Diving and Salvage and EOD applications
User: NECC/EOD/MDSU  Quantity: 9 New
Builder: Brunswick  Contract: FFP

8.5m Multi Purpose EOD Response Craft

Key Characteristics (Center Console)
- Hull Material: Fiberglass hull
- Length: 27’9”
- Beam: 9’10”
- Maximum Speed: 30kts in calm water
- Fuel Capacity: 198 gal
- Propulsion: Mercury Verado 150 HP
- Accommodations: Two crew, 5 passengers, 26 max persons
- Weapons: N/A

Procurement and Delivery Status:
- Contract Award April 2015.
- All Boats to be delivered by Dec 2015.
- New competitive 5-year, IDIQ contract in FY16 to buy approximately 5 boats per year thru FY21.