2012 Expeditionary Warfare Conference’s Initial Planning Guidance

Commander George Doyon
N953 Branch Head, Amphibious Warfare

13 Sep 12
How We Fight

• We are forward-deployed and forward-engaged: shaping, training, deterring and responding to all manner of crises
• We respond to today’s crisis, with today’s force … TODAY.
• As part of the Joint Force, the Marine Corps and Navy work together to leverage the significant advantages that amphibious forces provide a maritime power...

CNO’s Sailing Directions

• Our forward presence will build on and strengthen our partnerships...
• Provide offshore options to deter, influence and win in an era of uncertainty
• Remain ready to meet current challenges, today
• Our primary Joint partner is the U.S. Marine Corps. We must continue to evolve how we will operate and fight as expeditionary warfare partners.
OPNAV Re-Organization & Impact to N95

Resource Sponsor for:
- 3 Type Commanders & Oversight Commands
- 46 Programs
- $8.3B (annual avg across FYDP)
- 43 Ships (~10% of USN total)
- 113 Connectors (LCAC + LCU)
- 58,846 Personnel (~16% of USN total)
- 464 UICs

Director, Expeditionary Warfare (N95)

Naval Special Warfare (N951)
- Warfare Requirements
- Information Warfare

Mine Warfare (N952)
- Airborne
- Surface
- RMS
- ABS
- Mining
- Unmanned

Amphibious Warfare (N953)
- In-Service Amphibious ships
- Future Amphibious Ships

Expeditionary Pre-Positioning (N954)
- MPF(F)
- NBE
- JSF
- AFSB
- LCAC/SSC/LCU

Naval Expeditionary Combat (N957)
- Naval Construction (SEABEES)
- Riverine Forces
- Maritime Expeditionary Security
- Expeditionary Logistics

Manpower & Training (N959)
- All Expeditionary Warfare MPN/RPN
- N95 training responsive to new acquisitions

MAN, TRAIN, EQUIP, MAINTAIN, SUSTAIN, MODERNIZE
Amphibious Warfare Fleet Overview

Status

In-Service: 29 Total
(1) LHA-1 Class  (7) LPD-17 Class
(8) LHD-1 Class  (8) LSD-41 Class
(1) LPD-4 Class  (4) LSD-49 Class

Delivery:
AMERICA (LHA 6)  SEP 13
ANCHORAGE (LPD 23)  SEP 12
ARLINGTON (LPD 24)  NOV 12
SOMERSET (LPD 25)  MAY 13
MURTHA (LPD 26)  NOV 15
TBD (LPD 27)  NOV 16 (NET)

Decommissioning:
NASSAU (LHA 1)  2011
CLEVELAND (LPD 7)  2011
DUBUQUE (LPD 8)  2011
PONCE (LPD 15)  2012* AFSB retrofit
WHIDBEY ISLAND (LSD 41)  2014
TORTUGA (LSD 46)  2014
PELELIU (LHA 5)  2015**
DENVER (LPD 9)  2015**
** Considered for AFSB

Gaps/Fixes
Command & Control  Heat Mitigation (JSF/MV-22)
Combat Systems  C4I

Gaps/Fixes
Command & Control  Heat Mitigation (JSF/MV-22)
Combat Systems  C4I

Way Ahead
Mid-Life (LSD & LHD)  LHA(R)  LX(R)
Amphibious Assault Ship (LHA)

**LHA-1**

- **In-Service:** 1 (LHA-5 PELELIU)
- Troops: 1713
- Vehicles: 25,400 ft²
- Cargo: 105,900 ft³
- VTOL: 42
- LCAC: 1
- LCU: 4

**Decommissioning:**
PELELIU (LHA 5) 2015

**LHA-6/7/8**

- **In-Service:** 0
- Troops: 1686*
- Vehicles: 11,600 ft²*
- Cargo: 160,000 ft³*
- VTOL: 57*
- LCAC: 0 / 2 (8 only)
- LCU: 0 / 1 (8 only)

*Quantities shown for 6/7

**Changes:** LHA 6/7 → LHA 8

- FWD HANGAR HIGH BAY REDUCED TO 3 FRAMES
- AVIATION SUPPORT SPACES RELOCATED
- WELL DECK RAISED 9 INCHES
- 2 LCAC WELL & EXPANDED UPPER VEH SPACE
- AIRCRAFT PARTS STOWAGE
- MEDICAL SPACES REARRANGED (Troop Berthing Space Deleted)

**Delivery**
- PCU AMERICA (LHA 6) 1QFY14
- PCU TRIPOLI (LHA 7) 2018
- PCU TBD (LHA 8) 2024
Aviation Support LHA-6/7 & LHA-8

Unlocks JSF spots

LHA 6/7

LHA 8

Provides MV-22 maintenance spot clear of port side operating area

- Increases flight deck parking area
- Minimizes flight deck and hangar re-spots
- Improves maintenance time
- Improves ability to meet air tasking requirements

<table>
<thead>
<tr>
<th>Aviation Support</th>
<th>LHA 6/7</th>
<th>LHA 8</th>
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</thead>
<tbody>
<tr>
<td>High Bay</td>
<td>2 Full 49’</td>
<td>1 Full, 1 Small 21’</td>
</tr>
<tr>
<td>Hangar (K sq ft)</td>
<td>30.4</td>
<td>30.4</td>
</tr>
<tr>
<td>Shop (K sq ft)</td>
<td>20.1-22.1</td>
<td>17.6-22.1</td>
</tr>
<tr>
<td>Stores (K sq ft)</td>
<td>19.7-21.7</td>
<td>15.8-21.7</td>
</tr>
</tbody>
</table>
Amphibious Assault Ship (LHD)

**Status**
8 Ships in-service

- Troops: 1686
- Vehicles: 20,900 ft²
- Cargo: 125,000 ft³
- VTOL: 45
- LCAC: 3
- LCU: 2

**Gaps/Fixes**
Repair/Modernize
Meet 40-year ESL
JSF/MV-22 Alterations
C2/C4I/IC

**LHD-1 Mid-Life Upgrade**

**Aviation**
- PriFly Reconfiguration
- Install SAR DET Facilities
- NVD Compatible Lighting

**Logistics**
- Steam Plant obsolescence issues
- Logistics & Training upgrades

**C4I/CS/IC**
- IC System obsolescence'
  - Combat Systems
  - CANES

**Survivability**
- Weight & Moment compensation
- Fuel Oil Compensation System
- Damage Control Quarters (DCQ) System

**Assault**
- Folding Vehicle Ramp
- Replace LCPL with RHIB (Davit)
- Remove Monorail System
- Upgrade Synthetic Batterboards
- Ballast/Deballast System Improvements

**Propulsion**
- Maintenance Drivers
- Radar TLIs
- Boiler System Improvements
- Machinery Monitoring & Control System

**Hull**
- Maintenance Drivers
- Sideport Door Upgrade
- Corrosion control
- Well Deck Stern Gate Improvement

**Electrical / Auxiliary**
- Replace Steam Firepumps
- Electrical System Upgrades (C4I Support)
- 400 Hz AESS System Upgrades
- Flash Distilling Plant Level Control & Valves
- HVAC & Firemain System
- Light Systems Upgrade
- Additional A/C Plant
- N2 Plant Installation

~$140 M Annually (FY16-23)
Amphibious Transport Dock (LPD)

**LPD-4**

**Status**
In-Service: 1 (LPD-9 DENVER)

<table>
<thead>
<tr>
<th>Troops: 788</th>
<th>Vehicles: 11,800 ft²</th>
<th>Cargo: 38,300 ft³</th>
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<tbody>
<tr>
<td>VTOL: 4</td>
<td>LCAC: 1</td>
<td>LCU: 1</td>
</tr>
</tbody>
</table>

**Decommissioning:**
PONCE (LPD 15) 2012* (AFSB retrofit)
DENVER (LPD 9) 2015* (AFSB retrofit)

**Gaps/Fixes**
ESL (Commissioned 1968)

**Way Ahead**
PONCE retrofit as AFSB (2012)

**LPD-17**

**Status**
In-Service: 7

<table>
<thead>
<tr>
<th>Troops: 720</th>
<th>Vehicles: 24,600 ft²</th>
<th>Cargo: 36,000 ft³</th>
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</thead>
<tbody>
<tr>
<td>VTOL: 6</td>
<td>LCAC: 2</td>
<td>LCU: 1</td>
</tr>
</tbody>
</table>

**Delivery:**
ANCHORAGE (LPD 23) SEP 12
ARLINGTON (LPD 24) NOV 12
SOMERSET (LPD 25) JUL 13
MURTHA (LPD 26) NOV 15
TBD (LPD 27) NOV 16 (NET)

**Issues Fixed**
Propulsion
- Main Propulsion Diesel Engines
- Geislinger Couplings
- Shaft/Train Alignment

C4I
- Network Upgrades from SWAN to SWAN-CANES Hybrid (CANES provides C4I, SWAN provides HM&E)

Auxiliaries
- Ship Service Diesel Generators
- P1/P2 Piping
- Ti Aux SW System Piping
- Stern Gate Issues

~$117M Annually (avg FYDP)

**UNCLASSIFIED**
# Dock Landing Ship (LSD)

## LSD-41
- **Status**
  - In-Service: 8
- **Decommissioning (2014) TBD:**
  - WHIDBEY ISLAND (LSD 41)
  - TORTUGA (LSD 46)
- **Troops:** 454
- **Vehicles:** 13,500 ft\(^2\)
- **Cargo:** 5,100 ft\(^3\)
- **VTOL:** 0
- **LCAC:** 4
- **LCU:** 3

## LSD-49 (Cargo Variant)
- **Status**
  - In-Service: 4
- **Gaps/Fixes**
  - 30-year ESL (FY25 for LSD-49) LSD Mid-life (0 of 4 complete) extends ESL to 40 years (FY35)
- **Troops:** 454
- **Vehicles:** 16,900 ft\(^2\)
- **Cargo:** 50,700 ft\(^3\)
- **VTOL:** 0
- **LCAC:** 2
- **LCU:** 1

## LSD-41/49 Mid-Life Upgrade
### Technology Insertion
- Advanced Engineering Control System (AECS)
- LAN
- Machinery Monitoring System (MCS)
- Ship Control System (SCS)
- On Board Trainer (OBT)
- DEXTER
- Electronic Gov Act (Digital Fuel Rack Control)

### Mission
- 30-Ton Crane (LSD 49 Class)

### Hull Mechanical & Electrical
- Fuel & Engine Maint Savings Sys (PLMU)
- All Electric & Distribution Upgrade
- Power Mgmt Platform (PMP)
- Additional A/C Plant
- CW Distribution Mods
- SSDG Lube Oil Polisher
- LPAC Replacement (LSD 41 Class)
- Canned Lube Oil Pump (CLOP)

### Survivability
- Inclining Experiment

## LSD-41/49 Mid-Life Upgrade
### ~$80 M Annually (~FY14)
- Technology Insertion
- Mission
- Hull Mechanical & Electrical
- Survivability
**Amphibious Combatant Self Defense**

**ASCMS Defense**

<table>
<thead>
<tr>
<th>Class</th>
<th>SSCS MK1</th>
<th>ACDS Blk 0</th>
<th>SSCS MK2</th>
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<tbody>
<tr>
<td>Today</td>
<td>RAM, CIWS</td>
<td>NSSM, RAM, CIWS</td>
<td>RAM, CIWS</td>
</tr>
<tr>
<td>Future</td>
<td>RAM, CIWS</td>
<td>NSSM, RAM, CIWS</td>
<td>RAM, CIWS</td>
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</table>

**Electronic Warfare**

<table>
<thead>
<tr>
<th>Class</th>
<th>SLQ-32 V2, SLQ-32 V3</th>
<th>SEWIP Blk2, SEWIP Blk3</th>
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<tbody>
<tr>
<td>Today</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Future</td>
<td></td>
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</table>

**ASW / FAC FFAC**

<table>
<thead>
<tr>
<th>Class</th>
<th>NSSM, .50, Mk38, LRAD, Dazzler, STALKER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Today</td>
<td></td>
</tr>
<tr>
<td>Future</td>
<td></td>
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</table>

**Torpedo Defense**

<table>
<thead>
<tr>
<th>Class</th>
<th>NIXIE</th>
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<tbody>
<tr>
<td>Today</td>
<td></td>
</tr>
<tr>
<td>Future</td>
<td></td>
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</table>

**Command/Control**

<table>
<thead>
<tr>
<th>Class</th>
<th>LINK-11, GCCS-M, SACC-A, CNI, AADS</th>
</tr>
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<tbody>
<tr>
<td>Today</td>
<td></td>
</tr>
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*Evolving capabilities to match the threat; Integrating and automating systems for faster response times and improvements in situational awareness / Fleet interoperability.*

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Improving AMW C2

• Lessons learned from Bold Alligator ‘12 lead to CNO Tasking:
  – Develop a scalable, affordable Amphibious C2 solution set (top level requirements, basic architecture, CONOPS/CONEMP)
    • Integrate Blue/Green Top Level Requirements, architecture to improve shared C2 and shared situational awareness
    • Common across all ships and ashore, capable in all AMW mission subsets from HADR to JFEO & scalable for operations from ARG-MEU to ESG-MEB.
    • Utilize the Naval Amphibious Baseline for requirements validation and prioritization
Navy & Marine Corps Issues

• How We Fight
• Role & Size of Amphibious Fleet
  – *Fingerprint lift: Reducing footprint / size / WT / #s*
  – *Establish and understand requirements based on realities of “current and future wars”*
• Ship Building Timelines
  – *Embarked equipment changes are faster than ship modernization*
• Operational / Global employment of enhanced MPSRONs
• Fleet utilization and readiness

- Service Priorities
- Aging Fleet
- Reduced Budget

The Navy / Marine Corps team will continue to be the service of choice for “Bang for the Buck” investment to meet America’s global engagements
Questions?
Back-up
Future of Amphibious Warfare Ships

LSD-41/49 Mid-Life Upgrade
Technologies Insertion
- Advanced Engineering Control System (AECS)
- LAN
- Machinery Monitoring System (MCS)
- Ship Control System (SCS)
- On Board Trainer (OBT)
- DEXTER
- Electronic Gov Act (Digital Fuel Rack Control)

Hull, Mechanical & Electrical
- Fuel & Engine Maint Savings Sys (PLMU)
- All Electric & Distribution Upgrade
- Power Mgmt Platform (PMP)
- Additional A/C Plant
- CW Distribution Mods
- SSDG Lube Oil Polisher
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Mission
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Logistics
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C4I/CS/IC
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Survivability
- SSDS Mk2 Full
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- Fuel Oil Compensation System
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Assault
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- Ballast/Deballast System Improvements

Propulsion
- Maintenance Drivers
- Radar TLIs
- Boiler System Improvements
- Machinery Monitoring & Control System

Hull
- Maintenance Drivers
- Sideport Door Upgrade
- Corrosion control
- Well Deck Stern Gate Improvement

LSD(X) / LX(R)
- Replace LSD 41/49 Class
- LSD-41 Class 40-year ESL reached starting in 2025.

LHA-6
- No well-deck
- Ideal ARG composition
- Ideal for AOR (CENTCOM vs. PACOM)

How will our Expeditionary Force Fight the Nation’s Wars Tomorrow?

LPD-17 Challenges

- Main Propulsion Diesel Engines
- Geislinger couplings
- Shaft train alignment
- C4I
- Ship Wide Area Network (SWAN)

LPD-17 Class Wholeness Task Force addressing common issues

Auxiliaries
- Ship Service Diesel Generators
- P1/P2 Piping
- Ti Aux SW Sys Piping
- Stern Gate Issues
We are entering a Post-War Era

Naval Special Warfare
- Capability Driven Recapitalization
- Support NSW movement towards SFA
- Ensure NSW compatibility with Fleet assets
- Exploit Navy-SOF system commonality
- Improve tactical ISR capabilities
- Improve Command & Control

Mine Warfare
- Distributed and Netted
- Unmanned Operations
- Cooperative Behavior
- Computer Aided Detect/Classify
- Common Operational Picture
- Sea Warrior Transformation

Naval Expeditionary Combat
- Floating the Sailor from the minefield to increase clearance rates

Amphibious Warfare
- Capability Driven Recapitalization
- Supports Larger/Heavier USMC Footprint
- Full Service Life Ship Modernization
- Supports Joint Strike Fighter Ops
- Supports MV-22 Osprey Ops
- Improved Command & Control
- Improved Self-Defense
- Increased Survivability
## N95 Budget

<table>
<thead>
<tr>
<th>MPN/RPN</th>
<th>OMN/OMNR</th>
<th>SCN/NDSF</th>
<th>OPN</th>
<th>RDTE</th>
<th>WPN/PANMC</th>
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<tbody>
<tr>
<td>48.2¢</td>
<td>24¢</td>
<td>17.4¢</td>
<td>5.7¢</td>
<td>3.8¢</td>
<td>0.9¢</td>
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<td>$19.9B</td>
<td>$9.9B</td>
<td>$7.2B</td>
<td>$2.3B</td>
<td>$1.6B</td>
<td>$0.4B</td>
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</tbody>
</table>

- **MPN/RPN**
  - Amphibs/Connectors
  - MCMs
  - NSW
  - NECC
  - Beach Groups
  - Training

- **OMN/OMNR**
  - Ship Ops/ Maint
  - LHD Midlife
  - LSD Midlife
  - LPD 17 Task Force
  - MCM sustainment
  - Connector Ops/Maint
  - NECC Ops

- **SCN/NDSF**
  - LHA 8
  - MLP 4
  - LCAC
  - SLEP
  - LSD (X)

- **OPN**
  - LPD TF
  - Midlifes
  - NECC
  - Organic MCM

- **RDTE**
  - Organic MCM
  - CMS
  - SSC
  - EOD

- **WPN/PANMC**
  - Gun Ammo
  - Small Arms
  - Mine neutralizers
  - CMS

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**OMN/MPN Concentrated**
LPD-17 Network Modernization

- Directed by N9B via LPD-17 MPCR action memo.
  - Analyze SWAN, determine future LPD-17 Network Architecture and resource sponsorship
  - $99M in “red-line” SWAN sustainment funding provided across FYDP
- $1.4M study co-sponsored by N95, N2/N6
  - Led by PMW 160, PMS 317 with stakeholder involvement by USMC, NPS, SEA 21, N96, N12, N15, SEA 05C, SPAWAR 5.0, NCCA, USFF
  - Study finished under budget, in time to inform POM 14.
  - 3 executive-level IPRs, multiple IPTs and weekly study leadership meetings.
- N95-N2N6 concurrence achieved on preferred COA: federated SWAN-CANES hybrid.
  - SWAN provides HM&E network services; CANES provides C4I services
- Resource sponsorship and funding adjudicated at first ever Program Capabilities Group board
- Modernization TOC ~$500M

Shared Commitment to Fact Based Analysis, Constant Leadership Engagement