19th NDIA Expeditionary Operations Conference
19 November 2014

CAPT Erik Ross, USN
Expeditionary Warfare Division (N95)
Branch Head, Amphibious Warfare Branch
OPNAV N953

Strategic Environment

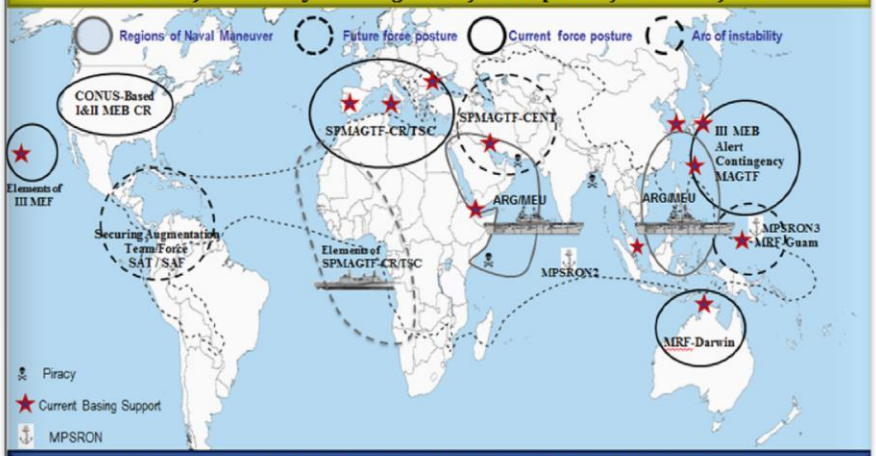
Drawing down after more than a decade operating in Iraq & Afghanistan

Emerging threats continue to place expeditionary forces in high demand

Ability to project force from the sea has become increasingly important

Amphibious Fleet and USMC Future Force Posture

The Navy/Marine Corps team: forward deployed and poised to respond within the arc of instability and regions of anticipated future conflicts.



The demand signal for amphibious platforms is increasing

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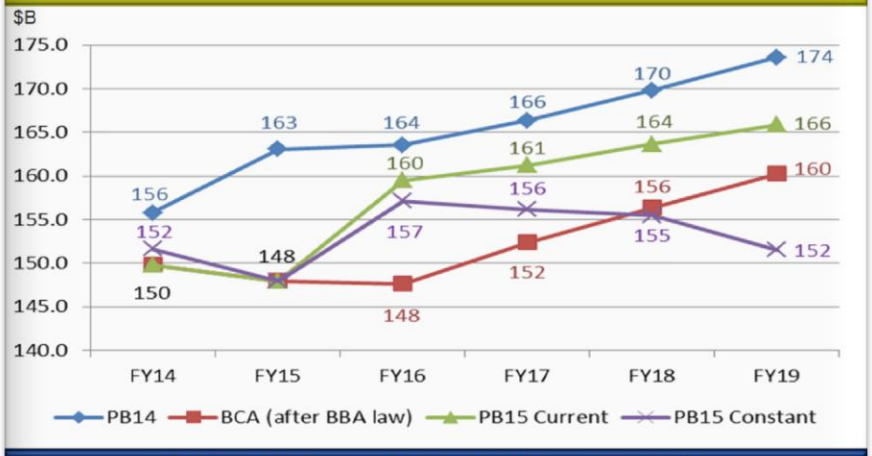
DoN Topline Trends

FY2014 - FY2019



The fiscal forecast is indicative of decreasing topline

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Refining & developing expeditionary capability is a priority in a fiscally pressurized environment

Global Implications

- Nations recognize the increased value of using the sea to influence and control events ashore
- They seek capabilities more flexible than the application of fires alone
- Modernizing states recognize the versatility of amphibious forces for a range of missions
- Governments seek to exert sovereignty over islands and in littoral spaces
- Global investments in modern/larger types (LHDs & LPDs) give capability for extended ranges/out of area ops

Amphibious-capable nations

- Australia
- Netherlands
- Spain
- China
- South Korea
- Israel
- UK
- France
- Italy
- Russia
- India

Amphibious-developing nations

- Indonesia
- Turkey
- Mexico
- South Africa
- Philippines
- Kenya
- Pakistan
- Taiwan
- Brazil
- UAE
- Chile
- Japan
- NZ
- Iran

Investment in amphibious capabilities reflects perception of emerging security challenges

Navy and Marine Corps Team Challenges

- Force Structure and Distribution
  - Pacific Rebalance and 'New Normal'
  - Readiness and Wholeness vs. Forward Presence
  - Operational Employment of Alternative Platforms
- Aging Fleet / Limited Inventory
  - Ship building timelines
  - Challenge / cost to maintain legacy ships
  - Removing barriers to improving readiness
  - Must stabilize maintenance & modernization availabilities
- Budget Pressure
  - BCA Impact / achieving required ship count
  - Modernization, figuring out what is 'good enough'
  - Must achieve better maintenance / modernization planning & execution

Increased demand to meet 'Rebalance to the Pacific' and 'New Normal' requirements vs. projected fiscal environment

Amphibious Ship Inventory

Current Amphibious Inventory

FDNF Sasebo
LHD-6 BONHOMME RICHARD
LSD-42 GERMANTOWN
LHA-5 PELELIU (filling gap)
LSD-48 ASHLAND

San Diego, CA
LHA-6 AMERICA
LHD-2 ESSEX
LHD-4 BOXER
LHD-8 MAKIN ISLAND
LPD-18 NEW ORLEANS
LPD-20 GREEN BAY
LPD-22 SAN DIEGO
LPD-23 ANCHORAGE
LPD-25 SOMERSET
LSD-45 COMSTOCK
LSD-47 RUSHMORE
LSD-49 HARPERS FERRY
LSD-52 PEARL HARBOR

Norfolk, VA
LHD-1 WASP
LHD-3 KEARSARGE
LHD-5 BATAAN
LPD-17 SAN ANTONIO
LPD-19 MESA VERDE
LPD-24 ARLINGTON
LSD-41 WHIDBEY ISLAND
LSD-44 GUNSTON HALL
LSD-46 TORTUGA
LSD-50 CARTER HALL
LSD-51 OAK HILL

Mayport, FL
LSD-43 FORT MCHENRY
LPD-21 NEW YORK
LHD-7 IWO JIMA

31 TOTAL TODAY
(Nov 2014)

8 x LHD-1
1 x LHA-1
1 x LHA-6
9 x LPD-17
8 x LSD-41
4 x LSD-49

- 38 amphibious ships needed to meet 2.0 MEB AE requirements
- 33 ships is the limit of acceptable risk to meet 38 ship requirement
- 30 ships must be operationally available

SHIP	2014	2015	2016	2017	2018	2019
LHD-1	8	8	8	8	8	8
LHA-1	1	0	0	0	0	0
LHA-6	1	1	1	1	2	2
LPD-17	9	9	10	11	11	11
LSD-41	8	8	8	8	8	8
LSD-49	4	4	4	4	4	4
TOTAL	31	30	31	32	33	33

* Inventory at end of FY

DELIVERY
LPD-26 in 2016
LPD-27 in 2017
LHA-7 in 2018

DECOMMISSIONING
LHA-5 in 2015

Attain amphibious capability at an affordable cost

Maintain Shipbuilding Plan:
Recapitalization of the Amphibious Fleet

Current

LHA-1 ***TARAWA*** Class

AV-8B Harrier

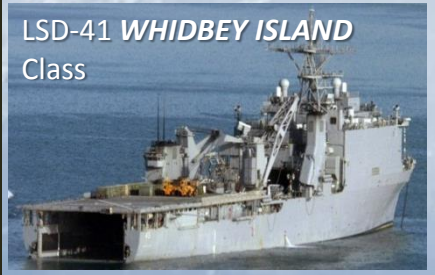
LHD-1 ***WASP*** Class

LPD-4 ***AUSTIN*** Class

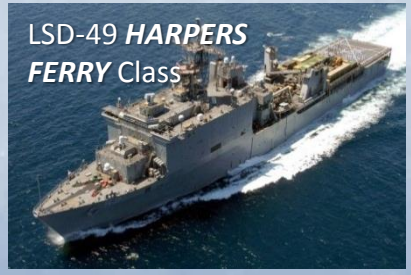
LPD-17 ***SAN ANTONIO*** Class

MV-22 Osprey

LSD-41 ***WHIDBEY ISLAND*** Class



LSD-49 ***HARPERS FERRY*** Class



- **Capability Driven**
- **Supports Larger USMC Footprint**
- **Supports Modern USMC Aviation Platforms**
- **Improved Command & Control**
- **Improved Self-Defense**
- **Increased Survivability**

Recapitalization

LHA 6 ***AMERICA*** Class

LX (R)

F-35B Lightning

LHA (R) Flight 1

LHA-6 AMERICA Class

LHA-6 recapitalizes the WASP class hull, upgrading to hybrid electric drive and an enhanced aviation capability

Troops:	**1687***
Vehicles:	**10,328 ft²***
Cargo:	**160,000 ft³***
Aircraft:	**30 or 20-23 F-35B***
LCAC:	**0 / 2 (8 only)**
LCU:	**0 / 1 (8 only)**

**Quantities shown for 6/7*

Delivery

- **AMERICA (LHA 6) APR 2014**
- **TRIPOLI (LHA 7) 2018**
- **LHA 8 2024**
- **LHA 9 2028**
- **LHA 10 2032**

<u>Flight 0</u>

LHA 6 & 7: Enhanced Aviation, but no Well Deck

<u>Flight 1</u>

LHA 8: Reincorporates Well Deck (2 LCAC) but retains reduced Island to retain enhanced aviation capability of LHA 6/7

LPD 17 San Antonio Class

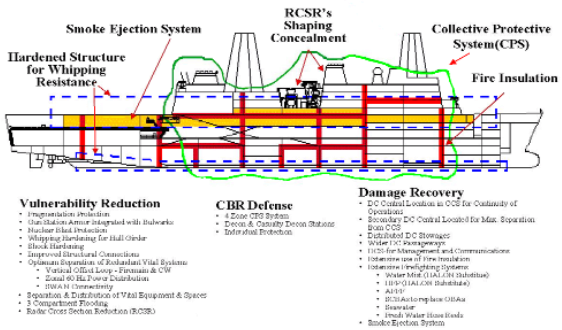
Functionally replaces four amphibious ship classes (LPD-4, LSD-36, LKA-113, & LST-1179)

- **Greater Mission Capability & enhanced C2**
- **Improved Quality of Life**
- **9 of 11 Ships Delivered**
- **LPD-26 Delivers 2016**
- **LPD-27 Delivers 2017**

Improvements

Mission Flexibility/Lift

Survivability



Quality of Life

Ship Characteristics

Displacement	24,900 lt
Draft	23.0 ft
Speed	24 kts
Crew	371 Sailors/3 Marines
Length	684 ft
Troop Lift	699 Marines (800 Surge)
Beam	105 ft
Medical	2 Med / 2 Dental O.R.s

LX (R) – LSD Replacement

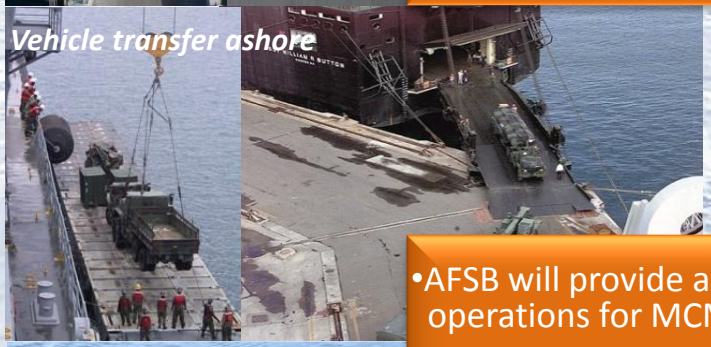
LX(R) Program Profile = 11 ships

- Recapitalizes the LSD ESL capability gap
- Analysis of Alternatives Complete
- Variants considered in the AoA included:
  - Baseline LSD 41/49 Equivalent
  - Tailored Specifications Designs
    - ("Hybrid" Milspec/Commercial)
  - LPD 17 & Modified LPD 17
  - Foreign Designs
- Affordability Initiatives Underway
  - Industry Involvement
  - Innovative Government Furnished Equipment Initiatives
  - Combat Systems and C4I System & Sub-System affordability
  - Prioritization and validation of Requirements
  - CONOPS development
- Deliver first LX(R) in FY 26

Mobile Landing Platform (MLP)

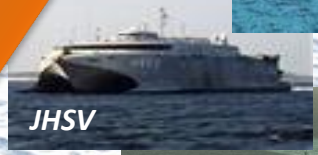
Current

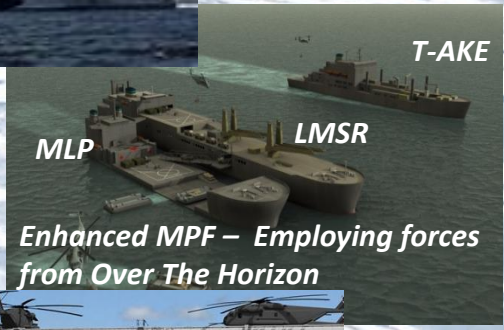
- Transfer of equipment and supplies at sea in non-anchorage depths
- Delivery to shore through restricted access environments
- Selectively off-loadable, tailorable force packages, persistent sustainment



- AFSB will provide a maritime base of operations for MCM and SOF missions
- Will include four core components: 1) aviation, 2) boat/sled ops, 3) berthing/ functional spaces, and 4) command and control (C2)
- Dedicated assets to apply across ROMO

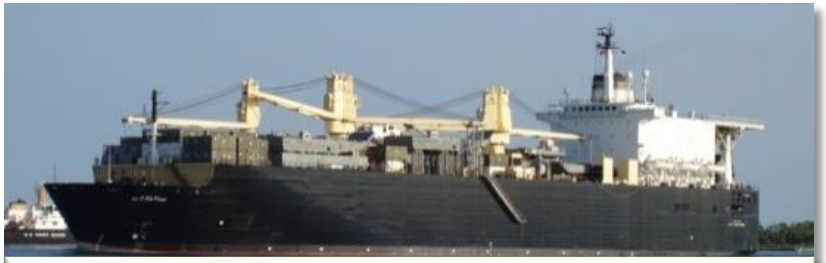
Recapitalization





Flexibility that permits influencing events ashore or at sea, particularly when denied access or a footprint ashore

Leveraging Alternative Platforms...CNO Direction

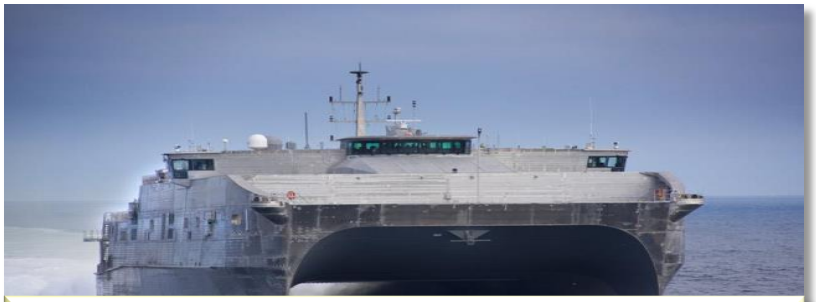


Container, Roll-on/Roll-Off Ship (T-AK)

Large, Medium, Roll-on/Roll-off Ship (LMSR)

Dry cargo/ammunition ship (T-AKE)

Mobile Landing Platform (MLP)



Joint High Speed Vessel (JHSV)

MLP Afloat Forward Staging Base (AFSB)

Relieve pressure on Amphibs...Augment, not replace

Connector Employment

2004 Indonesia Tsunami (Unified Assistance)

2005 Katrina (JTF Katrina)

2005 Pakistan Earthquake (Lifeline)

Connectors:

The core enabler of mobility and sea based sustainment across the spectrum from humanitarian assistance and disaster relief to major combat operations

2008 Haiti (Continuing Promise)

2010 Pakistan Flooding

2010 Haiti (Unified Response)

2003 TF Tarawa (An Nāṣiriyah)

2014 Africa (Energy/Ebola)

2011 Japan Tsunami (Tomodachi)

Ship to Shore Mobility

LCAC (SLEP)

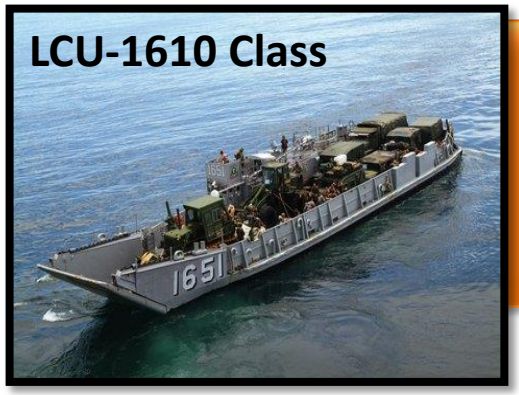
- 60 tons at 35 kts
- Designed to carry M-60 tank
- Narrower performance envelope

Ship to Shore Connector (SSC) replaces LCAC to retain high speed over the shore assault capability.

SSC

- Increased payload, temperature and sea state parameters (*74 tons; 100 F; high SS 3*)
- 72 craft procurement ~$ 4.1B through 2027
- Under contract for detail design with options for the first 9 craft

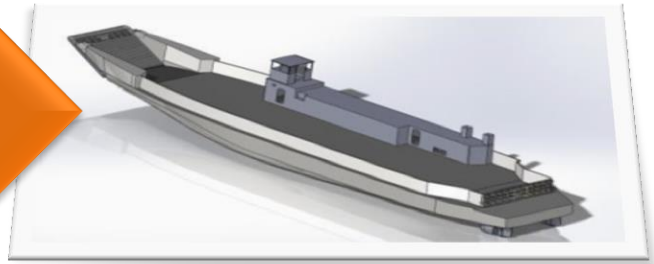
LCU-1610 Class



- 125 tons / 1200 NM at 8 kts
- 2200 sq ft payload cargo

Surface Connector (X) Replacement (SC(X)R) recapitalizes rugged, persistent, economical, high capacity utility landing craft.

SC(X)R



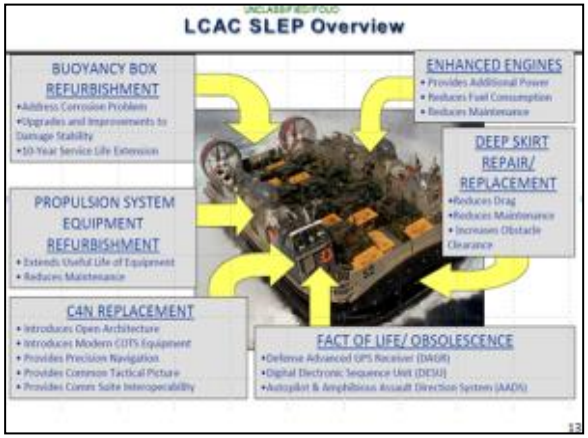
- ICD Approved; Analysis of Alternatives complete
- 170 tons / 1200 NM at 8 kts
- 32 craft procurement beginning 2018

Recapitalization of primary surface ship to shore connectors

Sustaining LCAC / Accelerating SSC:
Two sides of the inventory service life gap

LCAC SLEP: **Complete 72 FY15-18**

- Extends LCAC within service life until SSC FOC
- Provides 10 additional years of service
- 14 Craft FY15-18



LCAC Post-SLEP Sustainment:

- Addresses craft beyond 30 years
- Adds 5-7 years of service
- Replaces obsolescent C2/ Navigation, corrosion control and Hull, Mechanical and Electrical (HM&E) refurbishment
- 14 Post-SLEP FY15-19

Accelerate SSC

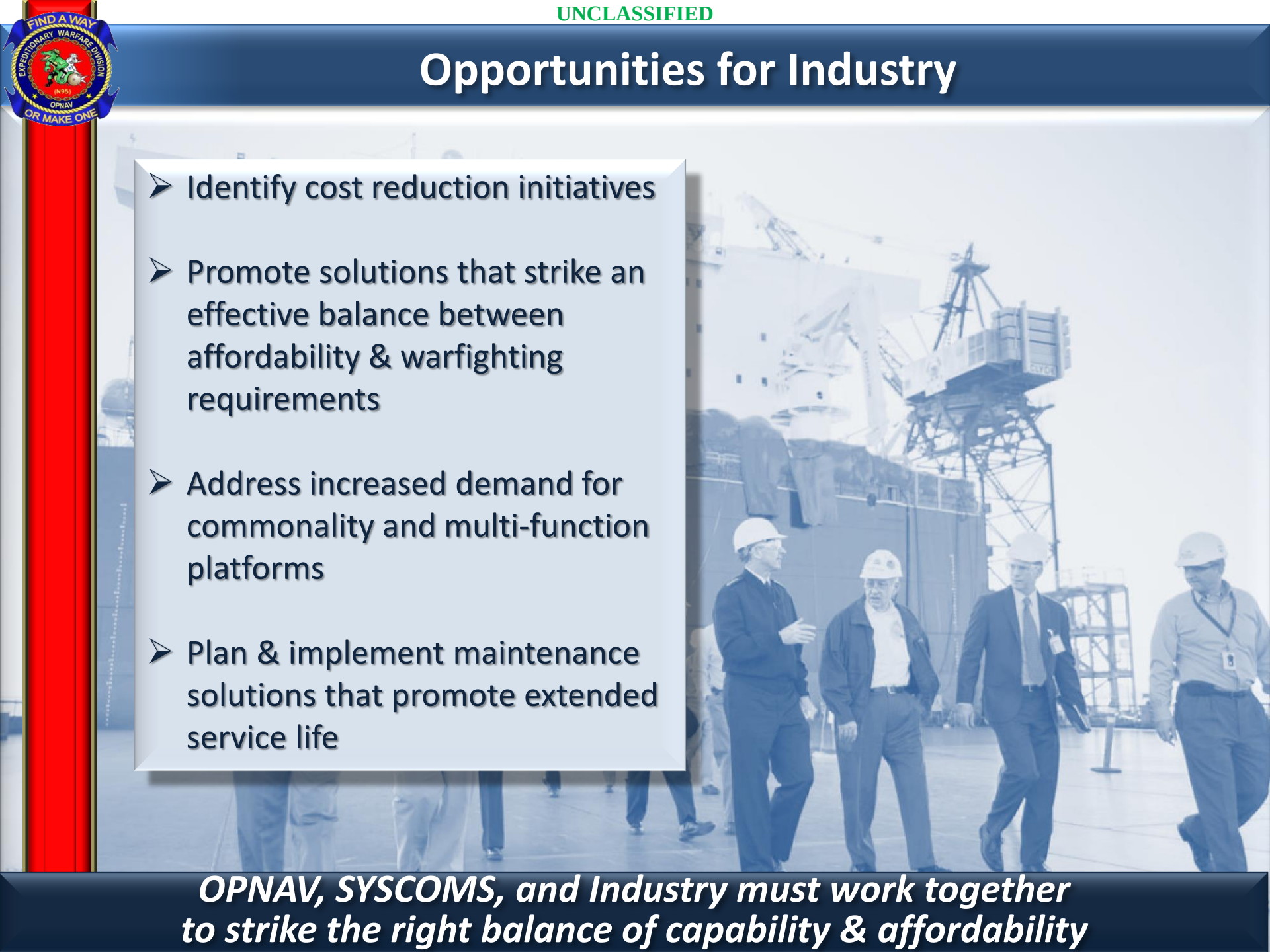
- Increase acquisition FY2020 & beyond
- Closes gap earlier
- Increases number of newer mo reliable craft in inventory sooner

(SC(X)R)

- Recapitalizes a rugged, persistent, economical, high capacity utility landing craft
- Modified repeat LCU design with limited dimension changes

Opportunities for Industry

- Identify cost reduction initiatives
- Promote solutions that strike an effective balance between affordability & warfighting requirements
- Address increased demand for commonality and multi-function platforms
- Plan & implement maintenance solutions that promote extended service life



OPNAV, SYSCOMS, and Industry must work together to strike the right balance of capability & affordability

Questions?

Expeditionary Warfare Division (N95)

CAPT Erik Ross, USN
Amphibious Warfare Branch Head (OPNAV N953)