Littoral Combat Ship

- Optimized for warfighting in the littoral
  - Unique designs for unique environment
  - Fast, maneuverable, shallow draft
- Targeted at critical capability gaps
  - Reconfigurable single mission focus
  - Mines, small fast surface craft, diesel submarines
- Modular open systems architecture
  - Onboard sensors, weapons, command & control
  - Offboard unmanned air, surface, and underwater vehicles
- Naval and Joint Force multiplier
  - Provides operational flexibility
  - Fully netted

LCS 1 variant
Lockheed Martin Prime
Shipyard: Marinette Marine, Wisconsin
Steel semi-planing monohull

LCS 2 variant
General Dynamics Prime (LCS 2 & 4)/Austal USA Prime (LCS 6 AF)
Shipyard: Austal USA, Alabama
Aluminum Trimaran
LCS Production

• LCS 1 (FREEDOM) and LCS 2 (INDEPENDENCE) are Delivered and undergoing Post Delivery, Test and Trials
• LCS 3 (FORT WORTH) and LCS 4 (CORONADO) will deliver next year with good cost and schedule performance
• LCS 5 (MILWAUKEE) and LCS 6 (JACKSON) are under construction
• LCS 7 (DETROIT) and LCS 8 (MONTGOMERY) are under contract
• MCM (2) and SUW (2) Mission Packages delivered and in testing
• PEO LCS will procure 4 Ships and 3 Mission Packages in FY12

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MCM Transition Legacy To LCS

Current Fleet
Mine Countermeasures Capability

LHD (Large Deck Amphibious Ship)

LSD (Amphibious Ship) w/ EOD & Marine Mammal Systems

Manpower ~ 2,300 Sailors
Sailors in Minefield: ~360
Area Coverage Rate

LCS
No Sailors in the Minefield

LCS w/ MCM Mission Package

LCS – Independence Variant w/ MH-60S
LCS – Freedom Variant w/ MH-60S

Manpower ~ 390 Sailors
Sailors in Minefield: 0
Improved Area Coverage Rate

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MCM Mission Package Capabilities

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Remote Minehunting Module
Replaces Legacy MCM Ships
Improves Clearance Speed/Endurance

Organic Airborne Mine Countermeasures Module
ALMDS MH-60s AQS-20A AMNS

Influence Mine Sweep Module (Prototype)
USV USSS

Sustained Minehunting and Clearing

Rapid Minehunting & Clearing

Very Shallow Water & Beach Zone Detection

Influence Mine Sweep Module
RMMV AQS-20As RMMV

Buried Mine Detection

Sustained Influence Sweep

Rapid Minehunting & Clearing

Organic Airborne Mine Countermeasures Module

OASIS AMNS Inc II

Sustained Influence Sweep

Buried Mine Detection Module

Very Shallow Water & Beach Zone Detection

Influence Mine Sweep Module
USV USSS

Sustained Influence Sweep

Buried Mine Detection Module

SMCM UUV w/ LFBB

Very Shallow Water & Beach Zone Detection

Influence Mine Sweep Module

USV USSS

Buried Mine Detection Module

SMCM UUV w/ LFBB

Sustained Influence Sweep

Buried Mine Detection Module

SMCM UUV w/ LFBB
MCM MP – Developmental Testing (DT) Accomplishments

- Successfully executed first simultaneous offboard systems mission
  - Remote Minehunting System (RMS) and MH-60S with AN/AQS-20A
- Executed Organic Airborne Mine Countermeasures (OAMCM) Missions
- Active Crew/Detachment Participation
- Executed RMS Launches & Recoveries
- MCM Situational awareness off-ship successfully executed from ship to Shore-based Command Center via GCCS-M
- Timed all test mission evolutions including MCM MP on-load

MCM MP Developmental Testing on LCS 2 in Progress
Focus for Future Mine Warfare in LCS

• Integrated Testing
  – Ensure Key Performance Parameters are synchronized and appropriate for systems and Mission Packages
  – Ensure that PEO LCS and partners are working together to support LCS requirements, integration and improve test and evaluation efforts

• Fleet Introduction
  – Position sailors, ship, mission modules, maintenance processes to meet the challenge
  – Embarking on a new set of capabilities, training/career path challenges and loss of current MIW expertise

• Future Technology, enabled by Open Architecture - Commonly Controlled, Multi-Faceted Unmanned Systems
  – USVs
  – LDUUV

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- PMS406 establishes LDUUV PoR, leveraging the LDUUV Innovative Naval Prototype development from ONR

- AoA Scope and Tasking Directive development in progress

- Expect RFP in FY14

- LDUUV is able to be launched from a variety of platforms to include LCS

- LDUUV missions include IPOE, ASW, Above-water ISR, Mine Countermeasures (detect to engage), and Offensive Mining

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Questions