



LCS Mission Modules Program



Delivering Capability to the Warfighter



Supporting the Fleet Today



- Surface Warfare MP has deployed on three different Littoral Combat Ships supporting operations in South East Asia
- Mine Counter Measure (MCM) Aviation capabilities (Airborne Mine Neutralization Module and Near Surface Detection Module) and COBRA have reached Initial Operational Capability



30 mm Gun



VTUAV



Maritime Security



AMNS / ALMDS



MH-60S helicopter w/ AMNS mission during TECHEVAL



Supporting the Fleet Today





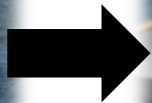
Surface Warfare (SUW) Mission Package



- ❑ SUW MPs with Gun Mission Module (GMM) and Maritime Security Module (MSM) are in the Fleet and successfully deployed to South East Asia aboard USS Freedom, USS Fort Worth, and USS Coronado
- ❑ On track to complete testing of the Surface-to-Surface Missile Module (SSMM) in FY 2018
 - SSMM with Hellfire Longbow testing to date has resulted in 20 successful engagements out of 24 total missile shots (success rate of 83%)
 - Embarked an SUW MP with SSMM on LCS 5 in August 2017 to support testing in FY 2018
 - Plan on track to transition SSMM to production in FY2018 and deliver first production asset in FY 2020
 - Complete procurement of SSMMs in FY 2023



SSMM GTV-1 (DEC 2015)



SSMM GTV-2 (AUG 2016)



STF from LCS (FEB 2017)

SSMM delivers the premier counter FAC/FIAC Capability to the Fleet



SSMM Testing





Anti-Submarine Warfare (ASW) Mission Package



- ❑ **Escort Mission Module (EMM)** - Utilizes a continuously active Variable Depth Sonar (VDS), integrated with a Multi-Function Towed Array (MFTA), to provide a revolutionary surface ship anti-submarine capability by allowing LCS to move the acoustic source and receiver above or below the thermal layer

- Awarded EMM development and production contract in Q2FY2017
- Design level engineering complete and Pre-Production Test Article (PPTA) delivers in 2018
- AUTEC Acoustic Testing scheduled for FY2019



Contractor Testing of the EMM PPTA to test end-to-end L&R and tow operations prior to contract award

- ❑ **Light Weight Tow (LWT) Torpedo Defense Module (TDM)** being installed on all LCS ships, regardless of MP

- Four Engineering Development Models (EDMs) produced to support testing in FY2018
- White ship test at the Canadian Forces Maritime Experimental & Test Ranges (CFMETR) in Q2FY2018

- ❑ **ASW MP IOT&E planned for late FY2019**
- ❑ **Navy looking to leverage LWT and EMM technologies for FFG(X)**



Conducted pier side Launch & Recovery Demo of the EMM PPTA with ASW MP Crew in August 2016



MFTA

Provides a game changing ASW capability not fielded on any other surface combatant



MCM Mission Package



- ❑ Achieved IOC for the aviation based systems (ALMDS/AMNS) in November 2016 and have certified for deployment off LCS-2 variant
- ❑ COBRA completed system-level operational testing in June FY 2017 and achieved IOC from MQ-8B in July 2017 with LCS integration testing being conducted in Q2FY2018
- ❑ Unmanned Minesweeping and Knifefish testing planned in FY2019
- ❑ Plan to conduct MCM MP developmental/operational testing in FY2020 and achieve IOC in FY2021



MH-60S helicopter en-route to conduct an AMNS mission during TECHEVAL



UISS/MCM USV Contractor Testing



VTUAV w/ COBRA



AMNS / ALMDS



Knifefish



MCM detachment unloading AN/AQS-20 sonar during TECHEVAL



Summary



- ❑ PMS420 is delivering deployable capability to the Fleet today
- ❑ Mission Packages have transitioned from design to test with a push to IOC and transition to production



Continuing to deliver Warfighting Capability

Distribution A: Approved for Public Release; Distribution Unlimited

A large naval ship, possibly a destroyer or cruiser, is shown at night. The ship is illuminated by its own lights, with a prominent red light visible on the lower part of the hull. The ship is positioned in the center of the frame, sailing on a dark sea under a deep blue night sky.

QUESTIONS?