Surface Navy Association

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PMS406
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PEO LCS Portfolio

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Achieving the Mission
From Mine Warfare to the Undersea Domain

Detection, Classification, Localization, Identification, and Neutralization

Key Enablers
- Energy Systems
- Autonomy & Precision Navigation
- Payloads & Storage Systems
- Undersea Communications
- Sensors (ISR, Comms, etc.)
- Platform Integration (L&R, etc.)

Today (MHU, RMS)
| Tomorrow (UISS, Knifefish, MCM USV MH) | Future (LDUUV, Barracuda, MDUSV) |

as of 2 Dec 2016
USV System of Systems Vision
Enhanced, Efficient Capabilities

Key Enablers:
- Energy Systems
- Autonomy & Precision Navigation
- Payloads & Storage Systems
- Undersea Communications
- Sensors (ISR, Comms, etc.)
- Platform Integration (L&R, etc.)

Very Small (Class 1)
- GARC Optionally Manned
- Armed Coastal Patrol

Small (Class 2)
- Mine Hunting
- Mine Sweeping
- USV w/Sweep (UISS)
- MHU 1-4 w/ AN/AQS-24
- USV w/ Sweep or AN/AQS-20
- Mine Sweeping & Mine Hunting

Medium (Class 3)
- Autonomy
- ASW
- ACTUV / MDUSV
- Ghost Fleet
- Technology Maturation, CONOPs, & Payloads

Efficient, Executable Progression of Capabilities onto Common USV Hull Forms

Note: Systems in Yellow not PMS406

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UUV System of Systems Vision
Enhanced, Efficient Capabilities

Key Enablers
- Energy Systems
- Autonomy & Precision Navigation
- Payloads & Storage Systems
- Undersea Communications
- Sensors (ISR, Comms, etc.)
- Platform Integration (L&R, etc.)

Efficient, Executable Progression of Capabilities through Various UUV Systems

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Summary

• LCS is the first ship class designed and built from the keel up to support unmanned systems
  – Unmanned Systems key to success of LCS and its mission packages
  – Modularity allows inclusion of latest and greatest technology as systems evolve

  ➢ Unmanned systems are high growth
    – Key enabler for both LCS & Undersea Enterprise

  ➢ Technology and innovation are our enablers

  ➢ Key technical areas where Industry can support
    – Increased levels of autonomy
    – Complex technologies that are reliable, maintainable, and sustainable
    – Evolved technologies in navigation, power, C2, etc.
    – Platform integration
    – Payload modularity and open architecture designs
    – Sensors (ISR, Communications, etc.)
    – Sensor data management & visualization tools

Leveraging critical technologies is integral to success in Unmanned Maritime Systems
Questions?