



# LCS MCM Mission Package Update

Combined Naval Event  
MAY 2024

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This Brief is:  
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## LCS MCM Mission Package

- Initial Operational Capability— Sep 2022
- Mission Package installation ongoing:
  - CANBERRA (LCS 30) – April 2024
  - TULSA (LCS 16) – May 2024
  - SANTA BARBARA (LCS 32) – October 2024
  - CHARLESTON (LCS 18) – November 2024
- First deployments:
  - CANBERRA – December 2024
  - TULSA – January 2025
  - SANTA BARBARA – February 2025

LCS MCM Mission Packages are arriving at a theater near you in 2025!

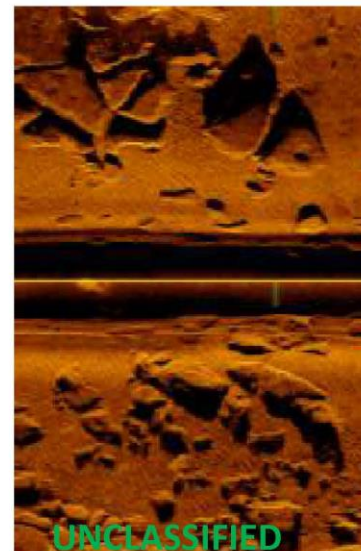
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## What is in the Mission Module?

- INDEPENDENCE-Class LCS Seaframe
- 1x MH-60S Seahawk helicopter
- 2x Airborne Laser Mine Detection Systems (ALMDS)
- 2x Airborne Mine Neutralization Systems (AMNS)
- 2x Unmanned Surface Vehicles (USV)
- 2x AN/AQS-20 MCM sonars (side scan and volume search)
- 1x Unmanned Influence Sweep Systems (UISS)





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## Technical & Tactical Problems

- LCS Mission Package is not a purpose built MCM system
  - Originally developed for employment from MH-60S
  - As technical concepts failed to meet requirements, had to change modality
    - AN/AQS-20 Sonar
    - Remote Mine Hunting System (RMS)
    - Coastal Battlefield Reconnaissance and Analysis (COBRA)
- LCS Mission Bay is big (but not big enough for everything)

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## Technical & Tactical Problems

- Mechanical Sweeping is an incredibly dangerous and resource demanding technique
  - Requires one or more ships to enter the Mine Threat Area at risk
  - Small boats or helos to support Pouncer operations
  - Potential for creating floating mines



ALMDS + AMNS allows rapid and safer "pruning" of moored mines

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## Technical & Tactical Problems

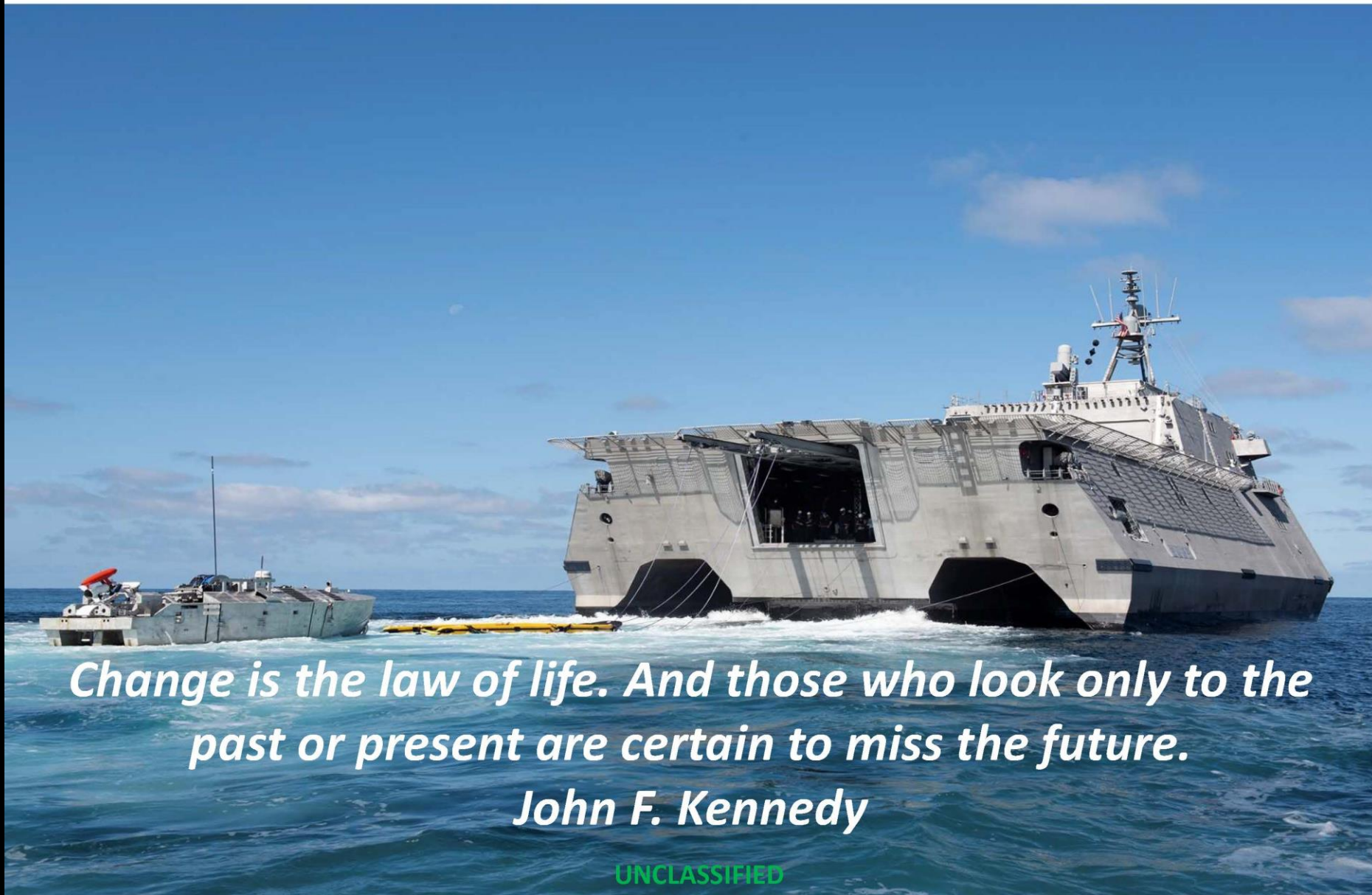
- Unmanned Systems are not easy
  - Weight constraints and form factors of the vehicle affect performance
  - Communications is always a limitation
    - Range
    - Bandwidth
  - COLREGs
  - Autonomy
  - Automatic Target Recognition
    - Speeds up the process
    - How to quantify reliability
    - Threat outside Order of Battle

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## Final Words



*Change is the law of life. And those who look only to the past or present are certain to miss the future.*

*John F. Kennedy*

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