

# Maritime Expeditionary Logistics

Contested Logistics, Sustainment at the Edge

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# Reimagine Expeditionary Logistics and Sustainment

## Vision

Ensure warfighters can sustain forward operations with optimized logistics support:

- *Remain in the fight as long as the mission requires*
- *Access the necessary logistics at the right time and place*
- *Recover expeditiously from mission capable downgrades*

# Maritime Expeditionary Logistics

## Focus Technologies

- Forward Logistics
  - Final mile analysis
  - Logistics modeling
- Digital Logistics
  - Generative Artificial Intelligence
  - Machine Learning
  - 5G based logistics management
  - Augmented and Virtual Reality applications
- Assured Logistics
  - Mobility
  - Decoy and deception
  - Swarm

## FY24 Projects

- VLS Re-load at sea
- Traveling Salesman in a Hostile World
- AM Materials Testing and Evaluation
- Xray-CT analysis of 316L
- Wire DED Process Qualification
- ■ RePAIR (digital assistant w/ eAM)
- Digital Manufacturing Environment
- Smart Warehouse
- Digital Maintenance (CBM+)
- Surf Zone measurement tool

Resilient sustainment enables mobility and persistence inside the WEZ

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# AI/AR Guided Repairs

## Digital Assistant + electronics AM

Demonstrate that AI/AR can guide a sailor to efficiently troubleshoot and perform maintenance on a complex system with minimal training. Perform an end-to-end proof of concept that utilizes:

Predictive Analytics



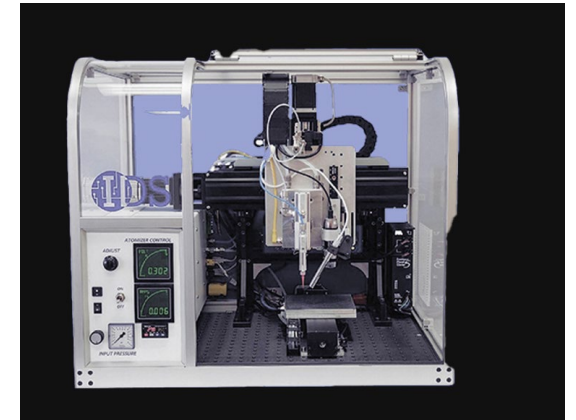
Generative-AI



AR Maintenance



Electronics AM



**END TO END ELECTRONICS TROUBLESHOOTING AND REPAIR**

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# Vision: Delivering a Robust, Distributed Maritime Manufacturing System



**Providing Difficult to Acquire Parts for Defense Industrial Base**

Developments that address long lead-time issues, are functionally equivalent, and have significantly lower weight-to-volume ratios.

**Shipbuilding**

**Vision: Connect Shipbuilders and Advanced Suppliers with Our Closest Allies**

US Advanced Maritime Manufacturing (AMM) program is a critical USMARP program to ensure USMARP and its allies have the ability to produce parts for our operations.

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**Partner Shipbuilding**

**Shipyard Repair Parts Production/Repair**

**Shipyard Repair**

**Demonstrating the Promise of Connected AM Afloat / Ashore**

DME enables collaborative advanced manufacturing.

**Deployed Repair**

**Vision: Ensure Warfighters and Platforms can Sustain Forward Operations**

Warfighters and platforms can sustain forward operations.

**Contested Repair**

**DISTRIBUTION A**

