L3HARRIS®
FAST. FORWARD.

CONDITION-BASED MAINTENANCE/ EQUIPMENT HEALTH MONITORING

Offering AI-driven CBM/EHM solutions predicting system failures in 1, 6 and 24-hour windows for the U.S. Navy, ensuring proactive maintenance

MISSION NEED

U.S. Navy vessels must maintain maximum operational readiness to meet mission requirements. Condition-Based Maintenance (CBM) and Equipment Health Monitoring (EHM) maximize fleet availability by enabling proactive intervention before equipment failures occur. By continuously monitoring system health and identifying issues early, CBM/EHM prevents unplanned maintenance and material casualties that sideline vessels, ensuring ships remain mission-ready when and where needed.

Today's warships have complex Hull, Mechanical and Electrical (HME) systems. Failures in these systems can result in a ship missing operational commitments. Current solutions include basic trending which does not provide the required analytics to predict a failure. Other solutions require the addition of multiple additional sensors, data acquisition units and network connections adding cost, weight and

complexity to the ship. As these HME systems are currently monitored by installed machinery control systems, the ability to use the currently collected data to provide CBM/EHM capabilities offers significant improvements to ships readiness with little additional cost.

SOLUTION

As an industry leader in machinery control systems development, L3Harris delivers an advanced CBM/EHM solution that leverages existing shipboard data with AI-driven algorithms to predict system failures across three critical time horizons: 1-hour, 6-hour and 24-hour windows. This multi-horizon approach provides operators with actionable intelligence to prevent equipment casualties before they impact operations. L3Harris' solution is hardware-agnostic and built on open architecture principles, ensuring seamless integration with existing systems while meeting customer requirements for performance, budget and schedule.

BENEFITS

> **Over 25 years of power and propulsion control and integration pedigree**

> **Capability Maturity Model Integration level 3 since 2003 – recently re-certified in 2025**

> **Systems integration lab with 10,000+ signal simulation and stimulation capability enables rapid test and evaluation of new systems available now**

> **Integrated condition-based maintenance**

> **Low non-recurring engineering cost due to reuse**

> **Detailed requirements development expertise**

> **Non-proprietary hardware and software integration**
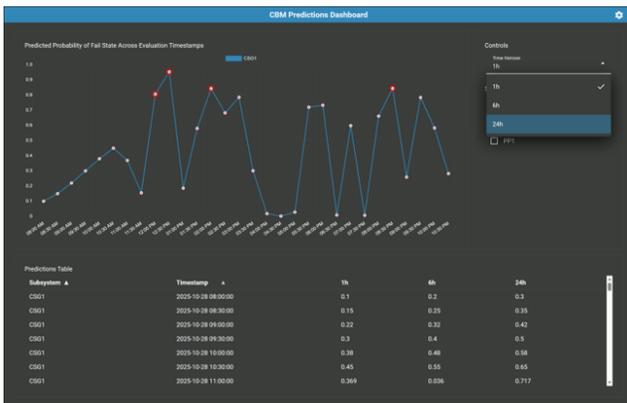
CBM/EHM Human Machine Interface

The appearance of U.S. Department of War visual information does not imply or constitute DoW endorsement.

L3Harris is the Trusted Disruptor in defense tech. With customers' mission-critical needs always in mind, our employees deliver end-to-end technology solutions connecting the space, air, land, sea and cyber domains in the interest of national security. Visit L3Harris.com for more information.

L3Harris Technologies, Inc.
1025 W. NASA Boulevard
Melbourne, FL 32919
L3Harris.com