

# EMCORE Awarded IMU Contract by Raytheon for Navy's Mk54 Torpedo Program



Sailors aboard the Arleigh Burke-class guided missile destroyer USS Lassen (DDG 82) maneuver a Mark-54 torpedo towards a firing tube. Lassen is on patrol in the U.S. 7th Fleet area of responsibility in support of security and stability in the Indo-Pacific region. Photo: U.S. Navy / Mass Communication Specialist 2nd Class Corey T. Jones.

ALHAMBRA, Calif. – EMCORE Corp. has been awarded a contract by Raytheon Technologies valued at \$3.6 million to deliver SDI500 IMUs (Inertial Measurement Units) for the MK 54 lightweight torpedo program, the company said in an Aug. 31 release. The units are expected to be delivered by September 2021.

The Mk54 is an advanced anti-submarine torpedo designed and developed by Raytheon Integrated Defense Systems in collaboration with the U.S. Navy. It can be launched from surface ships, fixed-wing aircraft, and helicopters for use in both deep and shallow waters and in various acoustic environments. The Mk54 can track, classify, and attack underwater targets using sophisticated processing algorithms to analyze information, edit out false targets or countermeasures, and then pursue identified threats.

EMCORE's COTS (Commercial Off-The-Shelf) SDI500 IMU delivers true tactical grade performance with  $<1^{\circ}/\text{hr}$  bias stability across a full temperature range with class leading  $0.02^{\circ}/\text{hr}$  angle random walk and 1 mg accelerometer bias performance. The compact, low power, high-quality SDI500 IMU enables superior guidance and control of the Mk54 torpedo during in-water maneuvers, plus improves system cost-effectiveness, reduces obsolescence, and increases sustainability for Raytheon and its customers.

“We have a long, proud history supporting Raytheon’s important defense programs at EMCORE, and previously at Systron Donner Inertial. Raytheon played a big part in helping Systron deliver 5,000 SDI500 tactical grade IMUs to customers globally,” said David Hoyh, director, Sales & Marketing for EMCORE. “EMCORE’s mission for its innovative and growing line of tactical grade products is to deliver superior inertial bias and noise performance under environmental conditions with smaller, lighter, more reliable and cost-effective product solutions than traditional tactical grade technologies or competitors.”